



Vol. 16

MARCH, 1909

No. 3

ENOUGH OF GLOOM—LET US BE OPTIMISTIC

The pessimist has had his innings. We have been obsessed with all kinds of dire forebodings about the future of our profession. Cheer up! This is a good world—and the future is on our own hands

WELL, like everybody else we try to keep in the fashion; and since pessimism is the fashion, we made a very hard stagger at it. We filled the journal with doleful forebodings as to the effect upon American medicine of numerous young Americans going to Germany, where they imbibed, along with a taste for beer, the European ideals about ultra-science, which holds the practical and useful in utter contempt and values itself only in proportion as it is devoid of all sense of utility. We showed how this same spirit permeated American medicine; how these youngsters brought back with them a contempt for the practical ideals of their native land, and endeavored to substitute the inferior sentiment of Europe for the self-respecting, self-asserting American ideals.

But now we are confronted with the stern fact that we forgot entirely to take into account the effect of Americans upon Germany and her ideals. For from Europe comes the wail that the German University has been Americanized; that it is no longer a place

where a wealthy, quiet, inoffensive dilettante scholar can spend the better part of his life, studying for the pure love of knowledge without the faintest idea of making it useful to himself or anybody else. The time has come that demands the practical utilization of knowledge. The valuation of knowledge in proportion as it can be made useful is prevailing the German Universities. Their ancient glory has departed and they are Ichabod.

Of course! Why, we were ever so stupid to fail to see that this was a necessary consequence. While deploring the transfer of countless millions of good American money to Europe, as our heiresses wed with the aristocracy of the old country, why did we not recollect that by so doing they were infusing a new element of good red American blood into their half-empty veins; that the American blood followed the American dollar, and that the results were bound to be seen in the offspring.

This also is brought forcibly to mind, as we read in the daily papers that the Duchess

de Chaulnes resolutely refuses to conform to the traditions of French aristocracy and employ a wet-nurse, but insists on being a real mother to the infant duke. That is the kind of American we are not ashamed of: one who puts the duties and pleasures of maternity above the demands of society.

It is no use! Try as we will, we cannot be pessimistic. It is a good world, and we are glad we are alive in it. It is a good country, and we are glad we are living in it. It is a good profession, and we love it. It is all right. The evils are only on the surface, and no sooner become apparent than they commence to fade away. But let us fight the evils.

Good comes to men, not as they work alone, but as they work together with that sympathy and understanding which is the only true democracy.

—Ray Stannard Baker

KILLING DRUG-THERAPY

As a further result of the vigorous campaign against drug-medication, and the frantic effort to turn back the medical profession to the bone-yard of discarded, obsolete trash, we quote the following from *The Chicago Tribune* of December 12:

"Drugstores in many parts of the city are closing their doors on account of decreased trade. Since last Monday seven drugstores on the south side have gone out of business. A number of north- and west-side drugstores have also closed their doors in the last ten days. Lack of business has been the cause in every case....Some drugstores have installed a chop-suey and chile-con-carne lunch. A druggist says, 'We used to keep a boy other winters filling two-grain quinine capsules, but we haven't had a call for any of that dope in a week. I'll bet there haven't been six bottles of cough syrup sold at any downtown drugstore in a week. Nowonder the drugstores are closing up shop. If it were not for the business we do in hot beverages, such as clam broth, bouillon and hot chocolate, downtown druggists could not pay their rent during the winter.'"

While the principal cause assigned is the good health of the city, we know that in a

great city like Chicago there must always be a certain amount of sickness, and that good health is not sufficient to account for such a decrease of business as to cause pharmacists to close their stores. The reduction of the mortality from fourteen per thousand to twelve will not do this.

It does not require much imagination, however, to get at the real causes. A non-drug therapeutic method is brought into vogue by some irregular; that is, by somebody who is not a regularly educated physician. No knowledge of anatomy or physiology is necessary for the application of this remedy, because all patients of every description are treated in the same manner. This wipes out at once the advantage of the regularly educated physician, who is supposed to adapt therapeutics to the case. Instead of adhering to his own intrenched position, the physician at once deserts it, goes over to the camp of his enemy, and endeavors to use his weapons.

The weapons of the enemy, however, are twofold. One is the application of the therapeutic method, and the other is his nonprofessional knowledge of humanity, his ability to reach patients by advertising and other business methods, and in this department he can beat the regular physician out of his boots.

The consequence is that all we accomplish is to give our endorsement of the method of the quack, and get a little of the business, but the vast bulk of it goes to him. It does not require any knowledge whatsoever of physiology, pathology or pharmacology, but simply an appreciation of the fundamental facts of psychology to enable any man or woman, even the most illiterate, to look over a patient, lay on the hands with the quiet assurance that benefit will follow, and by the various sources of suggestion produce such an impression as will either benefit the patient or make him or her feel appreciative. In fact, ignorance of scientific medicine aids the illiterate practitioner, as preventing that personal doubt of his own success, which would naturally come to a physician who realized the pathologic condition.

It follows that the methods which we thus endorse are better carried out by others, at least in so far as the impression made upon the public is concerned.

Our big mistake has been in deserting drugs to adopt every suggestion—good, bad and indifferent; rational, sensible or crazy—which has come to us from the outside, and giving it our professional endorsement. The way to meet the difficulty, as we have said, is not by returning to a drug-system which has proved unsatisfactory, and has been deserted by the public and the profession. Unless we have something better to offer, we ought to give up and retire from the struggle altogether.

This "something better" we have; as may easily be learned by anybody who will study the literature of the active-principle movement.

EXCITING CAUSE OF BILIARY COLIC

Query: A gentleman, fifty-five years of age, for years past has had traces of bile in his urine. Although he has never had an attack of gallstone colic, his physician has assured him he has gallstones—which probably is correct. This man is subject of late to very painful attacks of acidity in the stomach, causing intense gastric burning pain. This is soon relieved if he takes a teaspoonful of sodium bicarbonate; it is instantly relieved by one grain of calx iodata.

Now the question is this: Does a similar development of acid in the stomach, passing into the duodenum, give rise to the paroxysms of gallstone colic?

We know that in cases of irritation of any hollow viscus an anodyne, like cocaine, applied to the mouth of the duct leading from that viscus relieves the irritation of the viscus itself. Is there any reason why an irritation at the mouth of the duct should not similarly be transmitted to the viscus? In that case, if the intensely acid product of fermentation in the stomach passed down to the duodenum, coming in contact with the tissues at the mouth of the common gall-duct, is it not likely that the irritation thereby caused would be transmitted to the

gall-bladder, causing contraction and forcing the gallstone out to begin its painful journey through the biliary passages toward the duodenum?

If this should prove to be the case, it would explain why a gallstone may lie for an indefinite period in the gall-bladder without causing any irritation, but at some time sees fit to break out, with the usual paroxysm following.

Have any of our readers made any observations on this point? If not, will they please bear this in mind, and in their next case of gallstone colic ascertain whether there is a history of acidity preceding the attack within a few days?

Men seldom mount at a single bound
To the ladder's very top;
They must slowly climb it, round by round,
With many a start and stop.
And the winner is sure to be the man
Who labors day by day;
For the world has found that the safest plan
Is to keep on pegging away.

—F. H. Sweet

THE VASOMOTOR REMEDIES

There is no drug known to cause vasoconstriction by paralyzing the vasodilators. Apocodeine paralyzes all the vessel-nerves except the terminal fibers. With regard to digitalis, strophanthus, squill, apocynum, convallaria; also suprarenal and pituitary extracts and cactus; and the barium salts, sodium bicarbonate and sodium chloride: Sollmann says all the above possess the following powers: stimulation of the heart-muscle and its irritability, raising vascular pressure; vasoconstriction exerted on arteriole muscular fibers, and directly on the medulla (this is the chief factor in raising vascular tension); vagus stimulation, secondary to rise in pressure, and slightly by primary stimulation of the center.

Vasoconstriction is greatest in the splanchnic area, and this may dilate the vessels of other areas. Strophanthin quickly lessens the size of the spleen, increasing that of the leg. Digitalin resembles strophanthin, but digitoxin has a more powerful general vasoconstrictor action, and hence does not act

like strophanthin as above described. This should be noted in treating cases where an increase of the general blood-pressure is undesirable, as increasing the work of the heart. But when vascular tone is very low, as in shock, hemorrhage or intoxications, digitoxin is the choice. Strophanthin is of value for the almost immediate effect, enduring twenty-four hours (single dose), the accuracy with which doses may be gauged, and the painlessness, when given intravenously. "One of the first lessons learned in the laboratory work in pharmacology is the use of pure active principles of drugs, or at least of a physiologically standardized preparation."

Ergot is much abused. It has been given in inflammations to check hyperemia, to increase blood-pressure when below normal, but neither use is justifiable. It causes a slight rise in blood-pressure, ganglionic, *markedly in the pulmonary area*. Large doses paralyze and dilate the vessels and prevent the action of adrenalin. But Bradford and Dean showed conclusively that it increases the pulmonary blood-pressure, hence it is irrational to use it in hemoptysis. In postpartum hemorrhage the case is different, and ergot is useful. Its prolonged use to choke off myomas is more likely to induce gangrene of the extremities, or other forms of ergotism. Strychnine in ordinary doses is insufficient to alter blood-pressure. The benefit is rather from respiratory stimulation.

The nitrites act on the vessel-walls, dilating them, but not in the pulmonary area, where the pressure may even rise. The heart-beat is quickened by the lowering of pressure and there is depression of the vagus inhibitory center. Amyl nitrite acts almost instantly, like adrenalin, and is as evanescent. Glonoin lasts longer. Sodium nitrite requires two to three minutes to act, its effect lasting four to six hours. It disturbs the stomach. Erythrol tetranitrate does not irritate the stomach, and it endures still longer. By the mouth it shows effects in fifty minutes, and these last five hours. When the vasoconstrictor effect of digitalis is undesirable it might be possible to counteract it by carefully balanced doses of the nitrites. (Guthrie, *Southern Med. Jour.*)

The clinician who can balance a variable combination of four variously acting remedies like those in digitalis, whose constrictor effect lasts twenty-four hours, with any one of the nitrite group, with an action completed in five minutes to five hours, is certainly a master of his art. Any physician of average or ordinary capacity can easily balance digitalin and aconitine to accomplish this task, which is by no means so rarely needed as Guthrie states.

Vasomotor perturbation, with an excess of tension in part of the circulatory area and deficiency in another, is present in nearly every case that comes before the physician; and the double task of relaxing spasm and restoring normal tone is one of the most common, and the easiest in our daily experiences. Thousands of common, everyday doctors all over the country are doing this constantly, without considering what a wonderful thing they are accomplishing. With digitalin and aconitine, reinforced by strychnine or veratrine, they are meeting these indications successfully.

Turn your ego inside out. Look at yourself from the viewpoint of the other fellow. Such an inspection may lead you to put less emphasis upon other peoples' sins—more upon their virtues.

DOUBT-PARALYSIS

No more than in the day of Burns can we "see ourselves as others see us;" and possibly for a good many of us it is just as well. For a man is not of much account if he does not respect himself, believe in himself. More than that, the germs of failure come to any man when he commences to distrust himself. Let him once suspect that his self-sufficiency has no foundation, that the public eye sees in him faults, weaknesses, imperfections of which he supposed nobody but himself knew, of which he himself may, indeed, be unaware, and in that much his will is weakened, his self-confidence is shaken, his blows begin to lose power. He might strike out at his adversary as vigorously as ever, but there is no steam in back of it.

What takes the heart out of a man, therefore, is the suspicion that possibly he has

failed; and this suspicion, be it ever so little, is usually enough to turn the tide and produce a true failure, which might otherwise have been a success. For such a suggestion never stands still. It must either be downed or it will grow.

It generally grows. A man commences quietly to sound his friends; he gets the usual friend's perfunctory appreciation. He thinks he detects insincerity in them; the friend detects the loss of self-confidence. The two react on each other. Doubt is insinuated in the friend's mind. The very fact that the man has endeavored to sound him, leads to questioning the soundness of his position, and the ripple proceeding from this little pebble cast in the pond, never stops.

It is the right, it is the duty, of every man of learning who has a conception of the world to express that conception, whatever it may be. Whoever thinks he knows the truth must tell it. The honor of the human mind is at stake. The rights of the mind are superior to everything. —Marquis Ito

THE GET-TOGETHER MEETING

The get-together dinner of the Chicago Medical Society and the Chicago Association of Retail Druggists, the other night, was very enjoyable. There were several hundred there, mostly druggists. Dr. Cotton presided, and if anybody wants to enjoy himself at a dinner, he will not go wrong if he picks one out at which Dr. Cotton is toastmaster, and Corwin is on the list of speakers. Fantus followed with a pleasant talk, and then we listened to Quine. What a man is Quine! He seems to improve with age. There is not a public speaker in Chicago who can more aptly size up his audience, and more neatly fit his discourse to it. There is a charm in his well-chosen phrases and his melodious voice which never fails to win his audience.

After all, what does it amount to? Simply this, that the druggist is quite willing to increase his income by doing more work for the doctor. The druggist, however, is not generally willing to give up any of the income he at present receives from ways which the doctor does not approve, such as pre-

scribing across the counter, handling and advocating nostrums, etc.

But before we condemn our pharmaceutical brethren, let us ask ourselves whether they can afford to do differently. Men as a rule are as good as they can be. Their views as to matters ethical are largely dependent on the financial stress they are at the time enduring. It must be remembered that upon every man in this world is imposed the duty of making a living for himself and providing for his family. Every last one of us must be diligent in business to do his duty and to hold his own in the great battle which not one of us can avoid: the struggle for existence.

Every last one of us purposes to make his living and as much more as he possibly can —honestly, as a matter of course. The old Scotchman's suggestion, to, "to get gear, honestly if you can," is emphatically not the motto of either profession. But something more comes after "honestly," and that is "ethically;" and here is where opinions divert most widely.

With the extremist advocate, on the one side, the ethical is synonymous with the honest; and he looks upon the most rigid adherence to the code of ethics as nothing more nor less obligatory than adherence to the ten commandments or the statute law of the country. The man at the other extreme, however, looks upon ethics simply as a matter of fashion, to be followed if one can afford it and when it seems best.

The difference may be found largely in the financial stress. The man who has a comfortable income, so that he need not worry about money-needs is likely to look upon the matter with a very different eye from the man who is lying awake half the night, wondering where he is going to get the money to pay his grocer's bill. Go into Rector's, and you will see persons fastidiously examining the dainties set before them; and if they are not exactly to their taste, cooked to the precise turn, they may leave them. Take those same persons and put them on a desert island without food, and their ideas as to what is eatable will enlarge until, as sure as fate, the time will come when the

consumption of human flesh will not look to them so revolting a matter after all.

Ask the druggist confidentially whether he can stop counter-prescribing and the other things of which the doctor justly complains, and the pharmacist will tell you that he can not do it; that if he does not do these things his competitors will, and his business is in such a state that he cannot afford to be more ethical than his competitors.

We cannot avoid the feeling that any controversy between the doctor and druggist is absurd. It can only be explained by a failure on both sides to grasp the situation in its entirety. As long as each man persists in looking at his own side of the matter, it is impossible to comprehend it. In the United States Navy discord and contention ruled for many years, on account of the struggle between the old line officers and the staff, especially in the department of engineering. Here the growing importance of the duty was such that it required a continual increase of the authority of the engineer officers, and constant encroachment upon the line. Congress finally stepped in and settled the matter with one blow, by uniting the two bodies, wiping out all distinction between them.

This is the only sensible solution of the difficulty between doctors and druggists. The druggist claims that he *must* prescribe across the counter, that there are many minor ailments for which he is consulted, when people will not go to a doctor; and his refusing to prescribe simply means that the patient will go to a more accommodating druggist.

Very well. Allowing the truth of this argument, the inference is obvious. If the druggist *must* prescribe, he is in duty bound to make himself competent. In other words, it is up to him to take a full course in medicine, secure the degree, and thus properly qualify himself, professionally and legally, to do the work which he tells us he cannot avoid. This is the only possible solution of the question; it is the right one, and at once does away with the whole difficulty.

From all sides we hear verification of our foreboding, that this crusade against drugs

has passed all reasonable limits and is dealing death and destruction to the drug trade. Even the people who have been dealing such furious blows to the nostrums and proprietaries, in a fine Berserker rage, seem to be having some glimmering of sense and to be awaking to the fact that most of their blows have fallen upon the heads of the pharmacists. It is time to call a halt, before their unwise friends force the drug trade into bankruptcy. The doctor cannot afford to lose the pharmacist. He is a valuable man to the community and to our profession, and we are bound to uphold him for our own sake.

Kick and there's trouble brewing,
Whistle, and life is gay,
And the world's in tune
Like a day in June,
And the clouds all melt away.

THE DIVISION OF FEES

It seems that the profession is by no means agreed that the division of fees between the operator and the family physician is a practice wholly reprehensible.

In a late issue of *The Illinois Medical Journal* appear two articles by able men in which such division is strongly advocated. In *The Long Island Medical Journal* for January Dr. Dickinson says in his foreign notes: "Since Pean began the practice in 1893, in Paris operators halve the fee with the medical attendant. The argument that this causes the less scrupulous practitioners to refer their patients to the man who shares falls to the ground the moment the practice becomes universal."

The arguments in favor of the custom are given frankly. Dr. Dickinson asks: "Is it true that very few of the younger men of marked ability are being attracted toward general practice and internal medicine? If true, it is because the rewards, both in fees and honors, are small as compared with those of the surgeon and specialist. Is general medicine in Brooklyn being drained of its men of great promise in a way that should make one uneasy about the future? A

study of fees and a general agreement on readjustment may be in order."

We are going to take up this question in CLINICAL MEDICINE. We already have the promise of some good articles and in them both sides of the case will be presented. The matter will be opened up for discussion by the "family."

The work of the world has to be done by someone. If you do not do your share you are shifting your burden unfairly to the shoulders of some other man. Get under!

"NEVER-TOLD TALES"

W. J. Robinson has published a volume entitled "Never-Told Tales." It is a collection of stories dealing with subjects not usually mentioned in polite society: the marriage of innocent girls who contract gonorrhea or syphilis from their husbands, with the ghastly results; the old, old story of the girl who has loved not wisely but too well; the drug habit; the man who has been rendered sterile by gonorrhea and ignorantly blames and divorces his wife, because she does not bear children. Following this is an idyllic little account of a visit in Switzerland and one of the most charming little stories we have read for a long time, entitled: "A Page from the Life of Professor Beaumont."

It is a dreadful book; and the dreadful part of it is that it is true. These abuses exist every day, as every physician knows. It is a book which ought to be placed in the hands of every young man who is facing for the first time the world and its temptations, who feels that natural impulse to see and to experience for himself, to dip into the mysteries that open before his feet.

The book is marred by one chapter, which deals with the prevention of conception, and gives what in the author's mind is an ideal picture of the sad results of too frequent childbearing. With this we have little sympathy. While occasionally cases occur in which, from a strictly medical point of view, prevention is justifiable, it is safe to say that in ninety-nine cases out of one hundred where it is desired there is no such real need.

The true cause of race suicide is society: the desire of women to maintain their place in the social rank without the interruption, the disfigurement, and the other hindrances entailed by maternity. I am speaking from the results of an experience in medicine now rapidly approaching forty years.

Here is one little picture: A woman entered my office, weeping and begging to be relieved of the fruit of conception. She had already borne twelve children and all were alive. She "did not mind this," she said, "but the care of this large family prevented her doing what she might otherwise do to help her husband, by keeping boarders!" I knew the husband, a tanner by trade, but his chief occupation was the imbibition of beer. I comforted the woman as well as I could, and she finally left the office promising to take no other steps. In due time her thirteenth child was born. Three months afterwards she rushed into my office with the cry: "Come quick! Doctor! Mine baby is sick! Hurry up!" I said to her: "Now my dear woman, some months ago you came to me and said you wanted to get rid of that baby. Now it is born, has been christened, so why not let it die, and then you will be free of the trouble you anticipated?" About here she broke in furiously: "Shut up your damn nonsense, Doctor, and come and save my baby!"

I went and saved the baby.

Which shows the inconsistency of women; and also that for even the thirteenth child the beneficent Creator has endowed the mother with sufficient love to go around and to spare.

I do not believe in the prevention of conception. It is my conviction that the cases where it is at all justifiable are extremely rare, not one in one hundred of the cases that apply to the physician for instruction in prevention. I do not believe there are any means of prevention which are safe. I believe that there is a certain moral debasement inevitably inherent to fouling the marriage-bed with the appliances of the brothel.

I am sorry that Robinson included that chapter in his book. Without it these old truths, known to the physicians only too

well but portrayed in the vivid style of the writer, would be capable of doing an immense amount of good, and could be circulated among those who need this knowledge by agencies which may be deterred from taking up the work by the chapter to which we object.

Sacred are the lips from which has issued only truth. Over all wealth, above all station, above the noble, the robed and crowned, rises the sincere man. Happy is the man who has neither paints nor patches, veils nor veneers! Blessed is he who wears no mask!
—Ingersoll

DR. MATHEWS' RETIREMENT

We learn from *The Louisville Monthly Journal of Medicine and Surgery* that Dr. Joseph Mathews, for seventeen years the honored President of the State Board of Health of Kentucky, has tendered his resignation. The Jefferson County Medical Society honors itself by resolutions, passed unanimously by a standing vote, requesting the Governor to withhold his acceptance of this resignation and calling on Dr. Mathews to withdraw it. The cause of the resignation is intimated to be a disagreement between Dr. Mathews and the Secretary of the Board, Dr. McCormack. We heartily endorse the action of the Jefferson County Medical Society. Dr. Mathews is a man loved and revered by all who come in contact with him. It would be regrettable in every way for him to retire from the presidency of this Board.

SOUR MILK AND OLD AGE

There have recently appeared in the market several brands of tablets, variously designated and intended to meet the indication created by Metchnikoff of supplying a specific sour milk. The great Russian investigator some time ago announced that sour milk contained the elixir of long life, or in other words, the specific elements which combated the tendency to old age.

Next to death itself, our greatest objection is to growing old. We would like to stay indefinitely as young as we are now, and if there is anything in the use of sour milk

which will encourage this very desirable tendency, we will live on sour milk for the remainder of our existence.

But the first question that came to us was, why should we use these tablets? What is the need of using them to make sour milk when we can buy buttermilk for half the price, already soured? The answer comes back straight from the shoulder: "Because in the one case you get the germs you do not want and in the other case you get the germs you do want."

Buttermilk is milk soured by having been allowed to stand for a day or two, and from which the fat has been taken. Ordinary sour milk is soured by the bacillus acidilactici and contains in addition a large number of other organisms, more or less objectionable, that it gets from the air and elsewhere.

The buttermilk preparations on the market offer a germ shown to possess decided therapeutic qualities. The harmful and nonessential microorganisms have been excluded by careful and prolonged culture methods. The ordinary lactic-acid germs are quickly destroyed in the digestive tract and probably have no specific action on the harmful proteolytic microorganisms in the bowel. The specific germ found in these preparations, on the contrary, is one of the most active known antagonists of those injurious microorganisms alluded to; and it was due to this fact that Metchnikoff made his suggestion.

This is not the first time Metchnikoff has startled the scientific world by the exceeding boldness of his statements. When he announced that the white blood-cells were phagocytes, there was a general hilarity induced by that amazing statement. If you keep your eye on current medical literature you will find that his theory has been passively accepted now, and forms a part of the subconscious belief of the present day.

Possibly there is something in this specially soured milk idea. In the South the use of sour milk, under the name of clabber, is universal.

Sour milk is very palatable, and if it is therapeutically useful why not use it? Personally we intend to do so. We ourselves

are very fond of milk. For a long time we have only desired a good excuse to go on the milk diet. Now we have it. We are perfectly well and healthy; kidney, liver, heart and brain functions are satisfactory; but we welcome the idea that sour milk may delay the approach of old age.

WE SHALL DISCUSS THE EMMANUEL MOVEMENT

A number of our readers have asked us to say something in *CLINICAL MEDICINE* about the Emmanuel Movement. We do not wonder that physicians are becoming interested. This introduction of psychologic therapeutics into orthodox medicine and orthodox religion is certainly creating a great stir. It is hardly possible to pick up a popular magazine, nowadays, without finding one or more articles about it. The new-thought idea has caught on to the popular mind amazingly—there is no question about that. It is time that doctors began to reckon with it.

In order to present the essential facts, and that our readers may know just what this movement is and what may be expected of it, we have arranged for two very important articles on the subject, to appear in the next number of *CLINICAL MEDICINE*.

The first of these will be written by Bishop Samuel Fallows, of the Reformed Episcopal Church, Chicago. Bishop Fallows is the leading exponent of this movement in the West; he has written a book about it and is putting it into practice in his church. He has also organized the "League for Right Living," which will undoubtedly serve to disseminate information and arouse enthusiasm through organized effort.

The second article is to be written by Dr. James G. Kiernan, formerly editor of *The Medical Standard*, and one of the most brilliant and able psychologists in the country—a keen analyst of popular psychical waves. Dr. Kiernan will tell us something about the limitations and dangers of this movement.

These two papers are sure to be of intense interest. We believe that every phy-

sician in the country should read them. We hope that most of them will, also that this presentation may excite a discussion of the merits and demerits of psychologic therapy which may prove of practical service to the profession.

"That fool" rang in the ears of every crusader of progress. Illustrious men divide their careers into three chapters. Chapter One, The time when they jeered me; Chapter Two, The time when they cheered me; Chapter Three, The time when they feared me.
—Kaufman

MEDICINE SIX THOUSAND YEARS AGO

Harvey was almost anticipated 6000 years ago by the priest-doctors of Egypt in his momentous discovery of the circulation of the blood. As far back as 4000 B. C. Egypt had works on medicine and anatomy, and one brilliant genius—forgotten nowadays and omitted from the cyclopedias—I-em-hotep, priest of the sun-god Ra, and physician to King Torsothros, became so eminent that he was revered as a demi-god after death; a temple was built over his tomb, and in his honor hospitals were raised in Memphis and other cities.

Here the priest-physicians treated the sick and embalmed the bodies of men and sacred animals. They were probably the first of mankind to acquire rudimentary knowledge of the movement of the blood. Their papyri contain intelligent references to the heart, the blood-vessels and the pulse. Of the heart in particular they knew much, and their writings refer to its enlargement, fatty degeneration, displacement, palpitation and pericardial effusion. One remarkable passage of these old-world inquiries speaks of distension of the heart and shortness of breath as occurring because the blood has stagnated and does not circulate properly.

Not Greece, therefore, but Egypt, long before Galen and Hippocrates, was the motherland of rational medicine and anatomy. The views of the Greek on the circulation of the blood were almost exactly those which the Egyptians had taught many centuries earlier.

One remarkable means of treatment for incipient valvular disease of the heart which those long-forgotten Nile doctors taught was the method recommended at least 4000 years ago—to let the heart have as much rest as possible—a wise injunction, which we may yet practise with advantage.

I-em-hotep seems to have been an all-round genius—physician, architect, astronomer, alchemist.

There would be fewer fools if half the thought were expended on filling the mind that there is on filling the stomach.
—Gilhooly

THE FLY AS A SPREADER OF DISEASE

In *The Medical World*, Dr. Robert Gray, of Mexico, contributes an interesting paper giving his experience with the fly as a means of furthering the spread of dysentery. In a recent epidemic he arranged with some families with many children to disinfect and put beyond the reach of the fly the excretions of the first victim, who was securely screened against such invaders. When the first case occurred in each of these families, he put an end to the malady within a few hours, using castor oil, olive oil and lemon juice as a purge, following with copper arsenite. No other case occurred in either of these families, although in others where these precautions were not taken every member of these families was attacked in succession.

Dr. Gray says he has had no epidemic of typhoid fever since the fly-theory was put to practice. He has been able to prevent yellow-fever and malaria, by the simple precaution of having the drinking water boiled each day or impregnated with lemon juice.

DEVELOPMENT BY PERSECUTION

I have just come from the theater, where I have witnessed a dramatization of Zangwill's powerful work, "The Melting Pot." Persecution develops in a race certain characteristics, such as heroic devotion to principle and that mental keenness characteristic of those who must depend upon it for continuous existence under the sway of powerful enemies.

In his "Winning of the West," Theodore Roosevelt does justice to that remarkable race, the Scotch-Irish. These people, the descendants of the Covenanters who fought and died for their religious faith, intervened between the Quakers and Pennsylvania-Dutch and the fierce tribes of the Ohio Valley, occupied the mountain region from New York to Alabama, overflowed into the Ohio and Mississippi Valleys, and fought back the savages. To this sturdy race we owe the West and all that it means to America today.

France expelled the Huguenots, and this remarkable people carried a blessing wherever they went. In Holland and in England, as well as in the Carolinas, the leaven supplied by this race has proved its exceeding value; and even in South Africa, during the last war, the English found what their task was when they arraigned themselves against the Huguenot blood, the Jouberts and the Dewets.

Spain expelled the Jews, and in England the offspring of that exiled race long ruled the British Empire in the person of Benjamin Disraeli. Has Spain benefited by the loss of the brightest, keenest intellects she possessed.

We are now receiving into our population two remarkable strains of blood. Since the rise of Christianity Armenia has been the bulwark, first of the Greek empire and second of the faith, against the Persians and the rising tide of Mohammedanism. For two thousand years this sturdy race, the descendants of the warlike Hittites of David's day have withstood all assaults and unrelenting persecution in the mountainous regions of Asia Minor. At least a third of a million of them have been massacred during the reign of the present Sultan. All those who can get to America are coming. There should be a place for these men; as they raise cotton at home, it may be that the fertile lands of the South now lying idle for want of workers would offer a suitable home for these people. A race with such a history should be of value to us.

The same is true of the Russian Jew. To him America must be a land of promise;

and though he will necessarily face want and privation here, there should nevertheless be a place for him; and that place he will win through the qualifications developed by the exigencies of his European life. That the Russian Jew is not a perfect character needs no demonstration. To other races, in his present state, objectionable he may well be. But will he not supply an element to the future American race which no other could give, and which will not be without its value? When the innumerable elements crowding into this country have amalgamated and contributed each its strain to that future American race, that supplied by this one may not prove the least valuable. The Russian Jew has industry, fortitude, a stubborn devotion to principle that death itself does not daunt, a mental keenness and flexibility that is unequaled, rendering its possessor adaptable to any condition that confronts him. To his family he is devoted. The saloon gets little of his earnings. He is instinctively patriotic and ever ready to shed his blood for the flag that protects him. Truly, there are other strains we could better spare.

THEORIES OF HEREDITY

In *The New York Medical Journal* A. Laphorn Smith contributes a paper on "The Explosion of the Theory of Heredity." It may be worth while to look at the evidence on which this theory has been founded.

Every human being is the product of two parents, four grandparents, eight great-grandparents, sixteen great-great-grand-parents and thirty-two great-great-great-grand-parents. These thirty-two persons of the last class constitute sixteen couples. We estimate the children of these sixteen couples as on the average two apiece, or thirty-two persons. The next generation would have sixty-four, the next one hundred twenty-eight, the next two hundred and fifty-six, and the next five hundred and twelve. So that we find within these degrees of relationship, that every human being possesses on an average one thousand and twenty-two blood relatives. If any one of these one

thousand and twenty-two happens to develop cancer, the disease may be said to be "hereditary."

Looking at it in this way, there is not an individual on the face of the earth in whose family cancer is not hereditary.

If you want things done—promptly and well done—call in a busy man; the man of leisure hasn't the time.

PHYSOSTIGMINE

"Two years ago I began using eserine hypodermically in laparotomy, as a prophylactic against distension. I usually give the initial dose of 1-40 of a grain immediately after the patient is returned to bed. Subsequent doses are given if the occasion requires; but I have only found this necessary in four cases, two of which presented symptoms of slight infection. Like Vogel, I have often been required to use an enema to remove the flatus from the lower bowel. From his experience I believe (clinically ?) that the influence of eserine is exerted only on the small bowel. I have never seen any bad after-effects from the employment of eserine and believe it can be used with impunity in proper cases. I have never used it in cases which came to operation with any marked degree of peritonitis, but have used it several times, successfully, in cases of appendicitis with slight peritonitic invasion. Have used it twice with success in cases of walled-off appendical abscess, but not as a prophylactic. In aseptic laparotomy it has worked like a charm, but has failed sometimes in those where infection was apparent. Flatus is usually moved in from one to four hours. During the time that I have used this remedy meteorism and distension have ceased to be a source of postoperative annoyance."—Moennighoff, in *The Journal of the Missouri State Medical Association*.

Comment: It will be observed that the dose recommended is a sedative and not a stimulant one. I have had disquieting collapse occur from a single injection of 1-50 of a grain; although it could hardly be said to be alarming, since the effects of physostigmine pass off so quickly. Like others of the pilo-

carpine group, this remedy provides for its own elimination, by relaxing vascular tension, and it, with the toxins universally, passes out of the body very quickly indeed. The suggestion that this remedy acts only on the small bowel is worthy of note, as a further step in the accurate differentiation of the action of allied remedies.

It is a great privilege to live in these stirring times, when every man has or may have an influence in making this world a different and a better world. What are you doing to help?

APPENDICITIS AND THE QUACK

We have frequently intimated that the quack is smart. Generally he is real smart; and it behooves us to watch our P's and Q's, and not leave any loose ends for him to pick up. A friend in Minnesota sends us proof, if we needed any, of the truth of these remarks. The general dread, inspired by the continuous publication of accounts of appendicitis, could not escape the keen eyes of these gentry. With swift apprehension they have seized upon the opening and are utilizing their opportunity to the limit.

In the literature forwarded us by our correspondent the quacks take the urgent and emphatic statements of the surgeon that "there is no medical treatment for appendicitis," nothing but the knife. The quack says: "You see what the doctors say, that they have no treatment but the knife. *We have.* We can cure you without the knife." And the worst of it is, they proceed to do just what they say. For we all know what an enormous latitude is given to the definition of appendicitis, by, shall we say, surgeons hungry for work? Let us believe that these gentlemen mean what they say, and that they believe their own statements when they say that in case of doubt it is better to operate upon the patient rather than to allow a single appendical abscess to rupture into the peritoneal cavity, and kill the patient.

Nevertheless they have given exactly what the quack needs. For *he* says, that under his treatment the majority of so-called cases of appendicitis may recover without an

operation, and with the expenditure of only a few dollars for medicine. Here the interests of the entire medical profession are sacrificed to an enthusiastic advocacy of the no-treatment-but-surgery fad.

In the present instance one of our good friends in Minnesota sends us a bunch of material issued by the Adler-i-ka Company, who send out a medicine which they say, as a good many other people seem to say, cures appendicitis. Well, suppose that nine out of ten of the people who are afraid they have appendicitis in reality have little or nothing the matter with them, most probably constipation, which a brisk cathartic relieves, and they are delivered from the fear of imminent peril which in their minds is associated with an appendicitis operation. They rush enthusiastically into print in praise of the remedy that has relieved their minds as well as their bowels. The consequence is that a large number of perfectly respectable people are enthusiastically recommending this medicine; and if the Adler-i-ka people are not reaping a harvest it is funny.

It may be that there is no medical treatment for appendicitis. People say so who are good friends of ours, and we know *they* believe it. But how can we put away the testimony of a lifetime of practice, without a death from appendicitis, excepting those that were submitted to operation? Surely, a man can't be a busy practitioner for a quarter of a century, or more, without meeting some cases of the sort; so that after making every possible allowance for mistakes in diagnosis, we must come to just one conclusion—that appendicitis is a very rare disease indeed, or else the vast majority of cases get well without operation.

It would be wise if a wide line of demarcation were drawn between the physician and the surgeon, and when the surgeon puts out such rash statements as that "there is no medical treatment" for this or that disease, it should be understood that he is speaking only from the standpoint of the surgeon and not that of the physician; in other words, that he is talking about things about which he is not competent and ought not to express an opinion.

The Adler-i-ka reports quote a doctor from Iowa who refused to accept the agency for this nostrum, remarking that "there is more money in an operation." May we not as justly assume that he spoke for the surgeon as that the surgeon speaks for the entire medical profession.

We take the ground, which is fully justified by public reports, such as that of Dr. Case of Missouri (published in our journal some years ago), that some cases of appendicitis, so called, are amenable to medical treatment and others require surgery. But in each case it is for the physician to decide, and he will decide the matter from the standpoint of the patient's interest; and the patient will undergo less danger by allowing such a moderate, conservative physician to take charge of his case, a man who will use surgery only when it is indicated and who will not neglect it when it is needed rather than possibly lose the opportunity of recovery by entrusting himself to a man who has medicine to sell, and who cannot possibly know whether the case is one which requires operation or does not.

AND ALAS! IT IS OFTEN THUS

The meeting held on December 18, 1908, by the "Section for the Study of Disease of Children" of the Royal Society of Medicine, London, was devoted to a discussion of whooping-cough. Fifteen prominent English practitioners participated in the discussion. The etiology—hypothetical—was gone into minutely. The symptomatology was described fully and in great detail. The possible complications were considered from every point of view. The statistical data concerning the incidence of the disease were given at length and were very interesting. The prognosis as to life and the patient's future general health was not forgotten. Even the hypotheses as to *why* whooping-cough produced certain complications were not omitted. But as to treatment—not a single new idea was presented, not a grain of information could have been picked by the practitioner who came to the meeting anxious to learn better methods of treatment of this obstinate disease.

We venture to assert that one hour spent in reading CLINICAL MEDICINE would have given the practitioner more practical and useful ideas than the discussion of the fifteen prominent English physicians, which lasted several hours.

Recipe for having good neighbors: Be one.
—Hubbard

IDIOSYNCRASIES

Dr. Hill, of *The Denver Medical Times*, is tantalizing. He gives us a little bit, in his editorials, of such deep import and practical-interest, that it makes us wish he had written a whole book.

Take for instance his editorial on "Idiosyncrasies," in the December number. Instead of leaving that designation as a sufficient explanation of certain unusual reactions on the part of certain individuals toward some particular drug, he proceeds to give reasons why such idiosyncrasies occur. Very few post-mortem examinations have been made on such cases, but even in these few marked variations have been found from the ordinary vascular or nervous distribution. Conditions of time, place and season also aid in explaining a so-called idiosyncrasy. Lead-colic is more frequent in hot months because there is low urinary excretion then. Race and sex have their influence, women being more susceptible to opiates than men. Age is also to be taken into account. The young bear atropine with impunity in doses that would be toxic to their elders, because of the little-developed nervous system.

"We should not ignore the great variations in the strength and purity of drugs and the occasional presence of injurious byproducts. Not infrequently, however, in attempting to explain some peculiar clinical occurrence, we must fall back upon what Virchow has termed the 'mystery of individuality.'

"The likeliest cause of most idiosyncratic instances lies in the existence of some dyscrasia, particularly one impairing circulation or elimination, as chronic interstitial nephritis, chronic cardiac or pulmonary disease, chronic alcoholism depressing the func-

tion of the hepatic toxin filter, indigestion, constipation and catarrh. Certain foods, as shellfish and strawberries, seem to set up erythema or urticaria by direct accumulation of irritating disintegration-products, which may act upon the skin."

He goes on to enumerate a long list of cases in which certain drugs give rise to erythema, papules, urticaria, vesicles, pustules, purpura and pigmentation, also other affections. Fever has followed the use of the solanaceæ, copaiba, iodoform, mercury, quinine, chloral, horse-serum and boric acid. Digitalis may cause a subnormal temperature, which is easily explained. Gastrointestinal catarrh, headache, affections of vision, delirium, depression and collapse, have followed a number of remedies.

In other words, it is not an explanation of such phenomena to attribute them to "idiosyncrasy," for every idiosyncrasy has its cause, and we have not done our duty until we have ascertained the cause in each case. It is by such investigations as these that the realm of the unknown and of the miraculous has been narrowed, and is continually being narrowed, as natural causes prove to be in operation.

CARDIAC DISEASE IN THE AGED

Wm. N. Berkeley presented an interesting though brief paper on this topic in a late number of *The Medical Era*. He justly urges the need of routine attention to the condition of the heart, even by specialists employed for the purpose of attending to some manifestation in the skin, bladder or elsewhere. He wisely refrains from dilating upon the diagnosis. "Until one can get on with his patients by himself, there is no way to learn cardiac diagnosis except to go to the clinic and the morgue, and listen, and observe, and feel for one's self, under the supervision of a good teacher." "When all is said and done there will be many cases that cannot be precisely 'labeled.' Yet enough may be gathered always from the symptoms and signs to set on foot an intelligent treatment." All cardiac therapy should address itself to the maintenance

of the cardiac muscle. If the heart is acting well, let it alone. The symptoms may be arterial rather than cardiac. With these the iodides may be beneficial, or essence of pepsin. Often neither will be well borne, the patient doing better by resting quietly, with glonoin and a suitable diet.

When slight dropsy and other evidences of beginning heart-failure occur, another lesson hard for the average practitioner to learn is that digitalis is not the first drug indicated. Dr. Berkeley especially refers to its interference with digestion. As a rule he prefers strophanthus, and is not afraid of dosing to effect, despite the Pharmacopeia. He believes in its continuous administration for a long period.

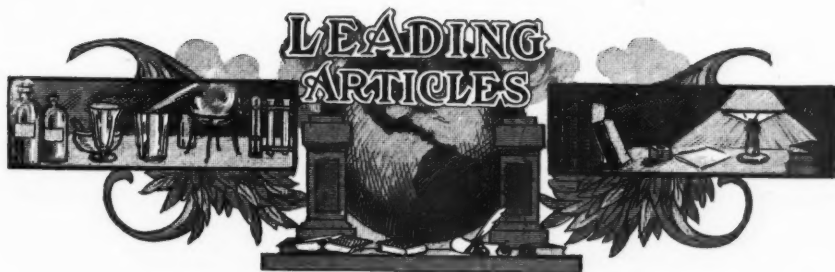
For angina he prefers glonoin to the nitrites, with long courses of strophanthus in small doses.

It is such papers as this that give us hope that drug-therapeutics is not dead, and that a healthy revival is in sight.

THINGS ABOUT DOCTORS

A few days ago we had the pleasure of listening to an address by Dr. J. N. McCormack, organizer of the A. M. A., on "Things About Doctors that Doctors and Other People Ought to Know." Dr. McCormack explained to his audience the vast scope of the thoroughly unselfish work which the medical profession of this country is doing for the people—and at what a tremendous handicap it is being done. We have found or are finding methods of preventing and curing consumption, typhoid fever, the infantile diarrheas and many other conditions, and in so doing are sacrificing our own livelihood. Dr. McCormack plead for the support and cooperation of the people in this great life-saving work.

Addresses of this kind must do great good. When the accomplishments and possibilities of *real* medicine are really brought home to the people they will not be so ready to run after all the strange gods. When we take the people into our confidence they will understand us better and respect us more.



THE LAW OF COMPENSATION: A SERMON FOR THE AVERAGE DOCTOR

The writer of this article prefers to remain "incog"—for obvious reasons. He is a specialist, an author, professor in a leading medical college, and known all over the country. He is not a "regular contributor" to "Clinical Medicine"

SOMEWHERE about the year 1843 a man by the name of Emerson took his pen in hand and did into English some very excellent thoughts on diverse subjects which ultimately found their way into print and are now on the market at different prices according to the style of binding. Some of these essays are fine specimens of hand-tooled cerebration and have caused some few people to do what very few people really do as a matter of habit—to think.

Thinking being a laborious task for the average son of an American father, he indulges not, though deluding himself many times that he really does, truth being that he feeds on some of the mental pap which escaped close inspection and was absorbed by him at frequent intervals and in chunks during his immature years. Being in a semisolid state, it was easily swallowed, requiring no insalivation or mastication and was readily absorbed, and so he fed until the habit grew. The habit increased until it became part of him, and he never realized that he had it, not even when he entered a medical college or while he was in it, nor after he left it. Even after that he fed on pap, and as the supply was unlimited, as it still is, he never found it necessary to turn to mental hardtack and to "fletcherize."

Then came along the law of compensation—this same old law that prompted the sage of Concord to write of it, this same iron-bound kindly old law which stands close to the first among laws in the book of nature. Something happened. It happened along very gradually, very softly, almost like the coming of a large soft-footed cat. It made but a little gentle noise, almost like a *bruit placentaire*, and it came closer. The man—he was a doctor now—didn't know what it was, he couldn't think at all what it might be. Naturally he couldn't, he hadn't ever learned to think, and he couldn't see very clearly because he had intellectual myopia, complicated with divergent mental strabismus. He strained his ears, but the cerumen was thick in his external auditory canal and admitted not the sound waves—so he heard nothing but the tinnitus aurium, which made a joyful noise within his labyrinth. As yet he felt no pain anywhere. He wasn't even uneasy.

One of the beneficent uses of pain is the production of thought, the birth of an idea. Thought precedes action. Pain precedes thought. Action brings change. Change is always for the better. Oh divine law of compensation! While the past twelve-month has been upon us and then away, it has

brought about this very condition. It crept upon us, it clawed us, it tore our flesh and it hurt. It brought us to a realization of certain things. It made many of us *think*.

There is still a great deal of thinking being done and mostly by doctors at the present time. Some have seen the light, others are groping in the dark, some have grabbed a floating spar, others are still struggling in the maelstrom and will soon sink from sight.

Not Pessimism—not a Case for "a Pill"

Now let me proceed with what will be voted a pessimistic tirade by many and traced back to a disorder of the liver. It will be asserted that the writer needs a pill, that he is suffering from an attack of autointoxication, due to the reabsorption of mercaptan and the like. But you're wrong.

To begin with, the writer is not a pessimist, neither is he an optimist—he's a realist. He wears not the smoked lenses of the first, nor the rosy ones of the second, but the crystal clear of the last, seeing in their true colors things as they are, not as they ought to be or as they might be. The realist is not yet numerically strong enough to occupy a position as well defined as is that of the O. and P., but he's getting on, thank you, and has some things to his credit. He's responsible, first of all, for a certain kind of original matter in the present-day literature both lay and professional—you know the kind that's different from the usual pap—the kind that makes people *think*. They are sometimes called kickers, knockers, iconoclasts, soreheads, etc. Socrates, Aristotle, Galileo, Diogenes, and two others, still living, are of this class. Well, you know what happened to the first four and I know about the rest, and that is sufficient for the present. Personally I have no use for a pessimist, his opposite suits me better, he's the least harmful of the two and in a measure offsets or compensates for the former. But give me the realist. He's the fellow who gets at the true state of things in the garish light of reason and starts something going.

During the past twenty years I have had occasion to plod along in my own peculiar way, through the field of medicine and with both eyes wide open and no error of refraction, consequently no eyestrain with its frightful consequences (see Gould of Phila.) I have seen things happening repeatedly and again, over which I pondered and meditated when the dew was on the rose, refracting sunlight, and when the breath of Boreas shattered the oak when it was loaded with ice. Always did something tell me that there was something wrong somewhere.

To Find What's Wrong—Look in the Glass

Being of an inquiring turn of mind, I proceeded to investigate. One day I chanced to look into the mirror and saw the cause of it all. My investigations continued and one day I reasoned that, being one of many, all of the same kind, there must be something wrong with many others all of the same kind.

That's it, there is something wrong with matters medical. You know this to be true, but will you admit that it's you—yes *you* that is to be blamed for it?

No, you will not admit this—that is, not yet. When you wake up, when you begin to think—capital T-H-I-N-K—then you will, and then you will *act*. Have you had time lately to stop a minute in the counting of your money to devote a little time to reading what others have been saying to you in the journals about the things that ought not to be, things that are and must cease to be? If you haven't, then in justice to yourself begin now.

You know how you are living. Do you know anything about how the other fellow is trying to? Maybe you do and don't give a snap. If you are of this kind, stop here and hunt yourself a hole, crawl in and pull the hole in after you. Get out of the line and give some other fellow a chance. What follows will not interest you, so go right back to your coupon-clipping.

The Increasing Number of Suicides

Just in passing I want to say that according to reliable statistics there have been recorded more than 200 physicians as sui-

cides in Chicago during the year 1908. The cause assigned was despondency. It is a fact that physicians are always in the lead in the suicide class, just as it is well known that the Germans are first in this particular pastime among people. It is likewise a matter of record that statistics show that the average income of physicians is between six and seven hundred dollars per year. It is probable that this is responsible for the despondency and its sequelæ aforementioned. You'll admit that there might be connection between the two. To me it is a plain case of cause and effect.

Let's go a little farther along this path—it bids fair to lead to something interesting. Why is the income of a physician less than that of a colored Pullman porter, or a hod-carrier, or that of a section-hand laborer? The real reason is, because he is *willing* that it shall be. If he wished it otherwise he would take steps to change matters. Every man is the architect of his own life. Some make a success of it while others fail dismally. This is equally true in other walks of life. Dun and Bradstreet will tell you that 99 percent of all new business enterprises fail. There's a reason.

Chicago not Greatly Different from Other Places

The same conditions that Chicago has to contend with are found in every one of the large cities of America, in proper proportion they extend to the smaller towns, aye and even to the villages do they refer in a measure. Wherever there is a doctor you will find evidence of it if you look closely. In the large cities the observer will find conditions fearful, pitiable. I say the observer, not the onlooker.

There are men, trained, capable, conscientious and honorable, who are existing on saloon lunches, going about with a hang-dog look and frayed trousers, unable to make enough money to enable them to look like professional men. There are many who count as their choicest possession a uterine sound and who do not blush when they receive the blood-money following the use of this instrument.

During the month of December I had five men walk into my office asking aid—all wanted to get back home. Back to home and honest work, if it can be obtained. Ask the detail-men that visit you with their samples, if you are interested in how the other fellow is getting on.

When one knows that conditions far worse than these exist, and when one knows the reason therefor, it is hard to condemn them because, although a man may be a doctor, he is still human, and being human, he is possessed of all the instincts of an animal; and even the noblest of beasts commits depredations when it becomes necessary to sustain life. Let us proceed to analyze some of the causative factors that produce such a state of affairs, then let us place the responsibility and find the remedy. This is the way in which we attack disease in all its varied forms and manifestations.

The Law of Supply and Demand in Medicine

In general business it is the law of supply and demand which regulates matters in the commercial world: It is the same in the field of medicine.

I'll ask you, Is there a demand for doctors now—or has there been for the past ten years? Knowing the answer, what are you—again it's up to *you*—going to do about it? Are you going to encourage every yokel you meet to leave the plow and take up the study of medicine? If you are, it will be worse for mankind and will eventually react upon you, and you deserve it. Suppose you take him aside and have a heart-to-heart talk with him, something like the one I am having with you now, and paint him a picture, and in its true colors, and then go to bed, feeling that you have done a great and good deed.

It might be worth your while to go to one of the large medical centers and size up the applicants for the degree of Doctor of Medicine. It will be a revelation to you, especially if you were to attend a quiz or if you had the privilege of reading an examination paper written in pigeon-English, teeming with error and giving unmistakable evidence

that the student (?) had never enjoyed even a fair education.

Here's where you say: "Oh, but such men are not even admitted into college these days—the requirements are too strict and they would never graduate because the 'exams' are too rigid and they could never pass the state-board examinations."

My answer will be that you are completely in error, in reference to each and every statement, and I'll furnish the proof. Perhaps you have somewhere heard the words "Corruption in Office," "Graft" and such similar terms. Do you think they apply only to commercial or political pursuits? If so you have much to learn. Investigate for yourself. I don't ask you to believe off-hand what I am saying to you. But you probably will not investigate and this is one of the reasons why things are as they are.

Encourage Really Worthy Young Men

Do not misunderstand me. I do not mean that there should be no more doctors. You know as well as I that a diploma never made a doctor and never will. Remember the silken purse and the sow's ear. If there is among your friends a young man of good moral character with the qualities of heart and soul necessary to make a real doctor, by all means encourage him to enter the ranks and help him all you can, send him to the right school and stand by him; but be sure he's right before you start him on the high road to Wealth and Fame. Remember the Law of Compensation and the Law of Supply and Demand—you'll not go far wrong if you do.

Now for another phase. Let's see why the income of the average physician is as the statistics indicate. Take a city like St. Louis for instance. This is what confronts the doctor here: A population of 750,000 people. There are about 35 hospitals here with the free clinics, where some 70,000 patients are treated annually. There are 10 medical colleges, each with its free clinics, and they treat something like 120,000 patients annually. Next you have the city institutions where a certain number of *pay* patients are treated each year.

There are about 350 drugstores where obliging drug clerks prescribe over the counter daily from 7 a. m. until closing time, and they deflect a certain amount of money from the proper channel each year. I have investigated and know positively that in one of the downtown stores the various clerks took care of 47 patients in one day. In another place an obliging clerk, who had failed in his medical exams and had found employment in a drugstore, gynecologized from two to eight women each night that he was on duty, in a room back of the store. In still another store a clerk similarly situated had a flourishing G.-U. trade as a side graft.

The "Practice" of Midwives, Nurses and Clergymen

Then the dear old dirty-fingered midwives and their clientele. While their number is not excessive, they help things along. Now the graduate nurses, both male and female, who number about 400 and who love their work so dearly that they never miss an opportunity to do a little medical work on the side. And then the dear, dear minister of the gospel who makes it his business to look after the physical welfare of quite a few of his flock, as well as after their spiritual comfort. Oh yes, quite true, I happen to know of some who just because some of their "charges" (I think that is the name they use for their "patients") persist in calling them "Doctor" feel in duty bound to act the part of medical adviser whenever opportunity presents itself. Do they get pay for this? Well, at least compensation. Then comes the rest, all in goodly numbers, to wit, osteopaths, Eddyites, Dowieites, Emmanuelites, the followers of Fallows of Chicago, your out-and-out quacks and your other clandestine medical sharks, and last of all your legitimate regular competition, numbering something like 1700 practitioners!

The Influence of Sanitary and Hygienic Laws

I tabulated the figures recently and my figures showed the average medical man's in St. Louis to amount to 568 odd dollars.

Not in the least surprising, is it? Another feature must be considered as contributory to the general welfare—of the public. Typhoid fever is seldom seen since the water supply of towns and cities has been perfected. When have you seen a case of smallpox? How many cases of diphtheria did you have last year? The Food and Drugs Act has had a wonderfully far-reaching effect upon the health of the dear people. The general prosperity of the country has given the people better clothing, better houses and better food.

The financial trouble of 1908 has not been without its lesson. The people had not the money to pay for medical service and they did without and got along very nicely, and they learned from experience that nature often takes care of ailments for which they formerly consulted the doctor. The great educational campaign on the part of several large publications has been fruitful, inasmuch as many intelligent readers have profited by their reading.

The patent-medicine exposes and crusade have injured the doctors' business, at least they haven't helped him. School inspection, the instituting of preventive measures on the part of the municipal authorities is another feature which must not be overlooked.

Pernicious legislation which the profession unknowingly aided by its apathy and complacent attitude is showing its results daily.

Coupled with all the aforementioned it must not be forgotten that the cost of living has increased from 25 to 40 percent—still doctors' fees have remained nearly the same, or have shrunk, by reason of the frightful abuse of medical charity which has affected the income of the physicians of Chicago to the extent of \$2500 per capita.

It is the same in other cities. The cut-throat competition among doctors is assuming terrible proportions. The lodge doctor, the contract surgeon and other medical skunks leave the imprint of their pernicious work everywhere.

Now what is to be done about all this? We have made a diagnosis, we have located or designated the causative factors.

What is the remedy? Here is where doctors disagree as they do generally on the subject of therapy. It is perfectly natural that they should—it's due to their training. It is the natural result of the pap-diet ingested during earlier years—when it was easier to let the other fellow think for you. Let us hold a consultation. Let us first of all agree whether or not our symptom-complex is correct—if things are as they are—unless we do this there can be no progress. The panacea for most of the ills of a nation is found in education. I am not going to dilate on this—there is no argument against a fact.

Some fellow has said that there are four grades of intelligence—namely, Ignorance, Knowledge, Learning and Wisdom. He who plans no further than the present is mentally blind. He who plans for a year ahead is a general. He who plans for a lifetime is a genius, and he whose mental vision extends beyond his life and who plans for a generation yet to be is a seer, a prophet.

Beautifully said and true in every particular.

When Will the Medical Revolution Come?

Conditions that exist and tend toward evil, continue because of the lack of knowledge or ignorance of those who do not know that they exist. It is folly to suppose that they would be tolerated or continue unchecked by the intelligent, earnest and aggressive men constituting the army of medical men. The time will surely come—it must come—when dire necessity will compel action. It will come probably when the terminal filaments of the pneumonogastric set up an unpleasant sensation between the thyroid cartilage on the north and the umbilicus on the south—as maps are read—when unpaid bills and mortgages produce insomnia and similar conditions excite Thought—thought will then impel action, and it will be swift. The same symptoms prompted the French Revolution. It was the animal instinct asserting itself—the beast wanted to live, so he found a way.

By this time you are convinced that the writer is a pessimist. You are wrong. One

need not paint in bright colors only to produce a picture. The studies in gray and brown are as true to life and to nature as are the others. It all depends on the light that the artist had when he worked. Most doctors have not yet seen the light; they are plodding along day by day, complacently doing the best they know how, and meanwhile the evil grows. The thing to do is to awaken to your responsibilities and duties to yourself and to those who look to you—be it a mother, a wife, child or fellow-man.

The Doctor Must Meet Changing Conditions

A complete change must be made in numerous ways. The doctor must first of all recognize the fact that 20th century medicine differs materially from the practices and customs of the dear old granny and "yarb doctah" days. Today professional success depends upon the science of service and he who profits most serves best. Same old law of compensation. You can not serve well under present conditions.

Success has its price and ability is the coin that passes current in its purchase. The present arrangement of things cripples you financially, mentally and some morally. The servant, though worthy of his hire is not getting it—because he does not demand it.

The profession has much to learn from the business man. "Oh, but we are not business men," you say. I say—there is no need of swelling up with pride about it. Would that we were better business men! Doctors' names would then cease to head the "sucker list" of every get-rich-quick concern. Some other class of people would get an opportunity then to buy a few gold bricks occasionally. How can you, under the present existing conditions, keep your office supplied with up-to-date literature, new and much-needed instruments, suitable office furniture, a buggy and horse and the necessities of life. How can you?

Why is it that the doctor has the low financial standing among the large commercial agencies that he has? It is because of what I have already detailed. Are you

satisfied to remain for the rest of your life in this rut—do you prefer the damp, dark valley of Want, aye Poverty, to the sunlit hills of Prosperity.

Are you?

Then why in the name of all that constitutes common horse-sense don't you wake up and act?

"The reason some men attain more is because they attempt more."

"He *can* who believes in himself—who *thinks* he can."

Now Is the Time to "Get Busy"

Within sixty seconds after you read this—get busy! That is the exact time to start. Spit on your hands, take a new grip and start something. Post up, Investigate, Reflect—and then act.

Here's a plan—just a bunch of resolutions which will work wonders. You must add to them but must not take away one iota.

I am going in to win.

I am not going to be a stool-pigeon for any hospital, college or association from this day on.

I refuse to be "worked" by anyone—even by my professional brother.

I am not going to boost any secret proprietary nostrum by using, recommending or indorsing it by word of mouth or through a journal, lay or medical.

I am not going to "graft" with any commission-paying surgeon or specialist of any sort.

I will not invest my hard-earned savings in any of the numerous fly-by-night get-rich-quick schemes, whatever their nature.

I will get busy in my own neighborhood and start a cooperation society with my medical brethren, for the good of the cause and for us all.

I am going to post up—"clean up and clean out" wherever it is needed.

I am going to use horse-sense and acquire a little business acumen and will not be content to leave to my family a legacy made up solely of widows' tears that I have dried or orphans' cries that I have stilled.

I am not going to count the gratitude of the public an asset of my business—neither

will I cease to do charity work when it is needed.

I am going to do a little missionary work along the lines suggested among my co-workers and instead of taking up the time at county-society meetings with time-worn discussions and unprofitable dissertations on

nothing in particular, I am going to lift my voice in meeting on live topics, the tenor of which shall be the problem of not only making a living, and a good one, but of making a life.

Then I am going to watch the working out of the Law of Compensation.

HOW I TREAT THE CHILDREN

Much of the general practitioner's work is among the little ones. His success depends largely upon his tact in managing them so as to make himself loved, not feared. This article will help

By CHARLES STUART MOODY, M. D., Sand Point, Idaho

A FEW months ago I told the readers of CLINICAL MEDICINE, in a very crude manner, some few things about how I made an examination of children. The Editor, evidently a poor judge of literature, asked me to continue the story and tell how I treat these same children after I have found out what is the matter with them.

I am going to assume it as axiomatic that the physician who uses the alkaloidal remedies is preeminently the children's doctor. I do not aspire to be a great character in any position in life, but I do aspire to have the little folks love me, and it has been one of my experiences that in order to win that love the medical man must exercise great diplomacy, especially in choosing his remedies for administration.

My Memories of the Old Family Physician

I very vividly recall the instances in my own childhood when it was necessary for the old family physician to visit our home for the purpose of administering treatment to my ailing self. His advent was never hailed with any great demonstrations of delight. Not only was the old fellow a perfect human bear in dealing with children but his remedies, while they may have been, and doubtless were, extremely potent in curing disease, were anything but finished examples of pharmaceutical palatability. Perhaps some of you, too, may recall the ten-grain

doses of calomel and the teaspoonfuls of tincture of podophyllum that the good old country medic used to ladle out with such prodigal liberality. The only thing in medicine that is more disgusting to the palate than podophyllum to my notion is the fluid extract of buchu in water, another of the old-time standby medicines.

I used to wish that medicines cost more so that the doctor would not give away so much of them. Once in awhile now I run across a pair of the old-fashioned saddlebags, holding anywhere from two bushels up, smelling of jalap and rhubarb and asafetida and divers and sundry other like fragrant and "sweet"-smelling drugs that were wont, in the good old days, to repose in their cavernous pockets. I can sit down before this relic of a past age and, closing my eyes, give a sniff and memory will bring before me some vivid visions of the past.

I see a country farm house of the Middle South nestling among the locust trees just off the high road, the trees now gaunt and bare. A deep white snow lies on the earth. Off yonder in the distance a log cabin stands in the edge of a clearing, the smoke curling in a filmy plume from the white stone chimney. Shocks of corn fodder stand like the white tepees of Indians over the fields, with here and there a crow perched upon one of them industriously pulling away at a nuna-

bin of corn. A high road runs along the east side of the clearing, and it is this high road that I am watching—they having moved my bed over near the window for that purpose. Presently along the road I see approaching an old gray horse with sedate and steady pace. Upon his back is perched a figure all muffled in a great coat, his head swathed in a bright yarn muffler. It is the country doctor on his rounds. I watch him with such fascinated gaze as I imagine a condemned man might watch the erection of his scaffold from the window of his cell. I am the condemned in one sense, for he is coming this morning, to see me. Now he is turning the old horse into the lane that leads up to the house. He is hid now from my sight behind an angle of the house but I know he is dismounting at the horse-block by the stile, and that father is leading the old horse to the great log stable.

The Dreadful Anticipation of the Doctor's Coming

My gaze turns to the great old-fashioned clock standing high on the mantle-board above the cavernous fireplace, flanked on either side by the white china dog that grandmother gave to mother on her third birthday, and the cut-glass candlestick that Aunt Sally brought back from England that time when she went over there with Uncle Silas. I count the solemn intonations of the old clock as it marks the flight of time and watch the steady creep of the long minute-hand between the two-inch high letters that separate the hours. He seems an interminable time in getting in the house. Every minute only prolongs the agony. I almost forget being sick in my anticipation of his coming. Not pleasant anticipation, however. Finally I hear him stamping off the snow in the entry, then I hear the rasp of the frozen broom against his shoes as he brushes off the powdery snow. The door opens and he enters. He comes in divesting himself of his yarn muffler and shedding his great wool mittens. Father carries the terrible saddle-bags.

It was characteristic of the old doctor that he never gave even a glance at his patient

until he had seated himself at the fire, warmed his hands, and retailed all the gossip of the neighborhood. His patient was the last thought in his mind. After the current scandal had been dwelt upon at sufficient length he was reminded that his professional services were in demand. His examination was of a very elementary character. It had the merit of brevity. Then ponderously turning to his *armamentarium medicum*, he would liberally dispense those horrible powders. This accomplished, he arose, began donning his habiliments preparatory to taking his departure—which I had been praying for all the time—all the time issuing scraps of directions about the medicines, interlarded with items of scandal overlooked in the first seance. Thus I saw him depart and with a sigh of relief watched the antiquated equine disappear around the turn of the road out of sight.

Someway a kind Providence watched over me and I am alive today, here in this great world, trying to set down my ideas of how children should be treated. So lasting was the impression left upon my young mind by the old medical man of my youth, that when I decided to devote my meager talents to the healing art I resolved that I should never emulate the fellow who poured pills and powders into my resisting stomach when I was powerless to prevent. How well I have kept that resolve will be seen by the man who has the time and patience to follow this little sketch all the way through.

This article is *not* a boost for active-principle remedies. They don't need it. I use the alkaloids for the very simple and cogent reason that they are the best that I can find. They have always "touched the spot" at the proper time, hence I have no desire to change. I simply say that the active principles possess great advantages over the old-style galenicals in dealing with children, and so I advocate their adoption. I do not care whose alkaloidal preparations you use, only do learn to use them correctly.

An Easy and a Hard Way with Children

How easy it is to treat a child if you go about it sympathetically and intelligently,

and how difficult when you go about it in the manner adopted by a great many. Take for instance a typical case of common croup. I judge the human mother never will get over her fear of croup. No matter how many years of experience she may have had and how many children she has pulled through, she is always afraid of it. The dear doctor must roll out of a warm nest and hustle into a few handy duds and simply fly over to where Jessie has the croup. Mother of Jessie, flapping about the house in dressing gown and house slippers, heating water, hunting up turpentine, kerosene, ipecac, red flannel, water bottles, flatirons, bricks — everything; Jessie sitting up in bed breathing so that you can hear her across the street, barking a hoarse, strident note and gasping for breath. It is a rather alarming picture the little girl presents upon first sight.

Whew! how we used to work in the old days before we had heard of calx iodata.

"A glass of hot water, please."

"Ah! thank you. Now, Jessie, a little brown tablet and a swallow of hot water. Feel better, dear? Of course you do."

(A few minutes later.) "Now, then, one more. That's the girl. Some day Jessie and I are going for a ride, out to the place where the man raises the white rabbits."

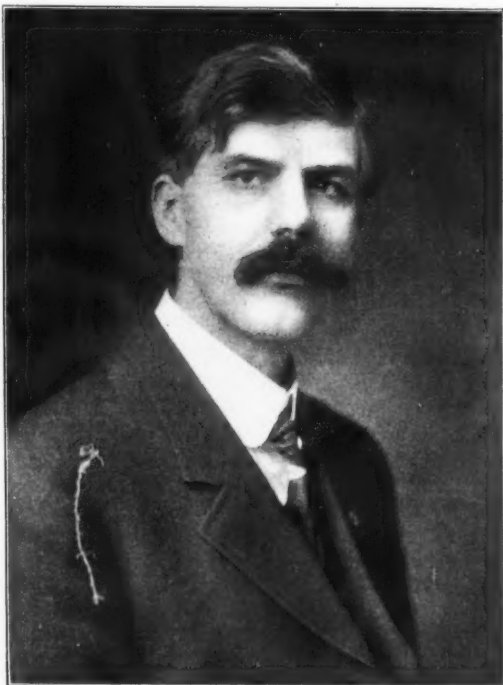
The breathing is loosening up a little. "Now, Madam, if you have just a little

good old-fashioned goose-grease. You have? Well, I'm exceedingly glad to hear that."

I'm a little old-fashioned myself about many things. Yes, I do believe that the old doctors could teach us lots of things. The only trouble is they never did it and left us to find out for ourselves.

"Now, Miss Jessie, we'll see what we can do with this." (Rub it in well.) "Aha, our

little girl is getting sleepy. Well, sleep is kind Nature's healing balm. Let her sleep. Now, Madam, I am going to leave some of this remedy with you and if Jessie wakes and seems restless just repeat the dose; and rest assured that all will be well. Good night..... Oh, don't speak of it, I entreat you. I'm always glad to come.... Yes, I will, she's been talking very much about it for a month now, but you know how hard it is to get her started... Good night."



DR. CHARLES S. MOODY

There. Simple, isn't it? No, not too simple, and very, very effective. Mother happy, child relieved, your welcome in that family always assured, and all by a little dose of something that the old galenical fellows never dreamed about.

How I Manage Pneumonia in Children

When pneumonia stalks in at the door and lays his chilling grasp on one of our little ones it is time for the stoutest-hearted to be alarmed. Perhaps the mortality-rate

from this disease is greater among children than from any other. In the old days, before we learned many better things, it was even greater. Now, thanks to improved methods of treatment, while not robbed of all its terrors, the terror at least is modified with hope.

I am going to tell you just how I treat every case of pneumonia in the little ones and how I manage to save the most of them. This procedure may not square with the way you do it; if your method gets results, stick to it, but if you are losing any number of your cases in a given hundred you had better look around for a change.

I will suppose that the diagnosis is already made and we are confronted with an acute lobar pneumonia. The patient's life should be considered as hanging upon the balance. The Damoclean sword is suspended by a hair over the patient's head, until the pneumococcus invasion has been checked. Even then it may attack another lobe.

Here is where the wise physician not only treats the little sufferer but the parents, uncles, aunts, grandmothers, grandfathers and solicitous friends as well. Everybody that stays around that house is pressed into service. That service may not be very necessary to the cure of that child but it serves to keep them busy and, as we used to be told, out of mischief. I send Uncle William down to the grocery after a bag of corn meal. I put Aunt Eliza at work sewing up a cotton jacket. Grandmother is installed head nurse and grandfather general errand boy between the sick-room and the kitchen. Mother shall do some cooking when Uncle William returns. In the meantime I want an oil-stove placed in the room and a basin of water placed upon it. I want the windows raised and the transom opened. I want this child to have all the air that it can use but I want that air well saturated before it is used. I have located the diseased lobe and have indicated where the trouble is, for the benefit of the people whom I shall expect to assist me. Uncle William and the meal supply have returned. I set mother to making flapjacks. Yes, that's what I said, f-l-a-p-j-a-c-k-s. Nothing else.

"Ho, Ho!" someone ejaculates, "what's that got to do with alkaloids?"

Nothing—and much. If that answer doesn't convey anything to your mind, then it is just about as sensible as your question. The medicinal side of the recovery of this case will come up later. I'm doing a few little non-medicinal stunts now. Mother bakes the flapjacks and grandmother applies them to the affected side of the chest. I stand by and act as general manager.

Along about this time however I have had one of my lieutenants bring me two glasses filled with hot water, also two teaspoons. These I place beside the bed upon a small table and lay my watch beside them. I am going to stay right here at this bedside and see this child out of immediate danger before I leave. If you cannot do that much for a human life you are not fit to practise medicine.

What I Try to Accomplish in Pneumonia

In pneumonia there is a "vicious circle" and the heart suffers as a result. Not only suffers, but as it suffers the circle becomes more vicious. We must bend every energy toward assisting it to break the circle.

Pyrexia must be controlled first of all. If the pulse is throbbing, full (as it generally is), I put six tablets containing each G. 0.0005 of veratrine in twelve teaspoons of hot water, and I administer a teaspoonful of this every half hour until I find the pulse rate decrease very materially. The patient will have begun to perspire before this too. A full dose of calomel at the beginning has been effective toward unloading the generally overdistended colon and the patient should be resting quite easy by this time. The dry, distressing cough has subsided under the constant applications of the hot flapjacks and you are ready for Aunt Eliza's cotton jacket, which is sewn snugly around the little patient's body. It is nearly morning now and you may with safety retire for a little rest for yourself.

Your task is not yet completed however. When next you see your patient she will probalby be improved, yet the heart will show signs of the stress through which it

has gone and will need some further assistance; the temperature also will show a tendency to keep up and needs a little further looking after. A combination fitting both indications is found in the well-tried combination of aconitine, digitalin and strychnine in minute dosage. I follow the same lead in administering these that I did in administering the veratrine named above. They tone up the heart, they tone down the fever: two most important items in treating your little folks with pneumonia.

I do not give cough remedies, nor do I give alcoholics. Both have proven useless in my hands and the latter at times a positive injury. This is not from any sentiments of temperance, but simply the result of bedside experience. I do nourish the child however up to the fullest extent of the digestive capacity. I also eliminate waste by full doses of calomel and keep up an as nearly aseptic condition of the alimentary canal as is possible by the use of the sulphocarbolates. It may be all "in your eye," this "aseptic" alimentary canal, but as long as I save my people by practising this kind of "bosh" I'm certainly going to stick to it.

The Clinical Picture of Summer Diarrhea

Permit me to fly with you, in imagination, to the extreme other end of the year. It is August, that month of intestinal disease. We are called to see a very sick child.. The first glance tells the story. The little one lies upon the couch, its face pinched and blue, the angles of the nostrils drawn, the eyes sunken and dark-colored. It is moaning in a low monotone, varied by grunts at intervals when the bowels are moving. One does not have to inspect the passages even to make his diagnosis. We will, however, do so, and find they are the characteristic "rice water" mixed with greenish slime and have the unmistakable "mousy" smell. The picture cannot be forgotten by any man who loves children and is pained to see them ill.

I have been so situated that it has been my sad fate to see many of these little folk ill in just this way, and my heart always bleeds for them, and in the old days, before I changed my methods, it was with intense

sorrow that I noted the little white caskets wending their way toward God's Acre. I used almost to sweat blood trying to find something that would save these little sufferers. The textbooks repeated the same old rot in the same old way, without a single variation to enliven the dead monotony of ignorance. I have poured opium and its congeners into the already overloaded alimentary canal of these diarrheic children until they died—medicated and perished in exact accordance with orthodox doctrine.

Treatment of the Summer Diarrheas

Now, my dear sir, I do not care a rap what your exact diagnosis may be. I am supremely indifferent whether you say that the child has ileocolitis, colitis, or what not? This child has an alimentary tract swarming with bacteria, and in its effort to rid itself of the disturbing element nature is draining the system of all the fluids, leaving the body all the more susceptible to the poisonous effect of the ptomaines; and unless this little person is relieved in a very short time there is going to be a sad, sad funeral here. It is going to require some degree of effort upon our part, and unless you are willing to battle for a human life all night and all the next day, if necessary, then you are not fit to practise medicine. The doctor (?) who walks into the house, makes a prefatory examination, writes out a prescription and stalks grandly out is not fitted to have the care of children—or of anybody else for that matter.

The high rectal tube and the douche bag are first in demand. Clean out the colon as far up as possible. Get a knit band and brace up the lower abdomen. Give enough castor oil to produce a free evacuation, then stop. If the child is vomiting I control it with either ice or cocaine. There are times when ice will fail, but not often; when it does, I give a powder in which cocaine hydrochloride and bismuth subnitrate are combined. I don't get any good from the bismuth—neither does anybody else—but it serves to help distribute the cocaine. My only object in stopping the vomiting is to give me a chance to get in some fancy work

with a few little things that are going to keep that little one on this side of the Jordan if anything will.

Here's where I get in with the sulphocarbolates. The friends will be wanting to examine my sanity some day if I don't quit talking about the sulphocarbolates. Well, ever since I learned, away back yonder, that there were "bugs" in the intestinal tract and began scouting about for something to help me get rid of them, when I hit on the sulphocarbolates and found that they did the work, I've sort of had bats in my garret on the subject. They are a breed of bats that don't do a fellow very much harm either. In fact there are several people of my acquaintance in the medical world that would do well to accumulate a similar breed of bats.

There are physicians (some of them on medical examining boards, I am sorry to add) who still believe in the Methuselean system of dosing diarrheic children with the galenicals—whatever they may be—until that particular baby dons a bright halo and joins the heavenly choir. I know they do, for I've seen 'em do it. Now, old man Galen might have been (and no doubt was) a wise guy in his day, but somebody—maybe it was Roosevelt—said "the world do move." The same fellows who are traveling along in the wake of Galen in medicine ought, by the same process of reasoning, to be performing their surgery in the same manner as Ambrose Paré.

Treatment of the Child's Mother

I returned this afternoon from a case where I had to apply my remedial measures to the mother as well as the child. The mother was not sick enough to know it, but she really ought to have been so blamed sick she could not get inside the child's room. Then I'd have had an easier task with the child. Let me first intimate the line of treatment that I applied to the mother before entering into a discussion of the child. This was one of the cases that have always puzzled me. Remember, I do not pretend to any great erudition, so I *can* be stumped once in awhile.

The patient was a young girl, just reaching the age of puberty. She was suffering from that baffling nervous trouble yclept hysteria. Smile, if you please. But you do realize, while you cannot find any pathological lesion to work on, that the sufferings of these patients are very, very real to them? Do you know that no mother lives who can look unmoved upon the frantic movements of her daughter in one of these "spells?" This girl was struggling in the grasp of two strong men, frothing at the mouth and endeavoring to bite any person in reach. The mother was trotting about the room wringing her hands and lamenting, calling to the attendants to "watch out or she will bite you." Every time she said that the young lady would faithfully obey her suggestion. When prevented she would scream at the top of her lungs.

Oh, yes, of course, I wanted to spank her too, but, then, I didn't. I wanted more to spank the mother. I didn't do that either. I did, however, call the lady out into another room and lecture her sharply for her idiocy. It made her a little angry at first but she got over that. They all do.

Then I turned my guns on the patient.

My Treatment of a Hysterical Girl

The first thing I did was to hustle all the attendants out of the room. The two strong-arm men that were holding the little girl down by main force were dispensed with. Everybody cleared out and left me alone with the child. She calmed down as soon as the room got quiet. She still continued to sob hysterically but there was an immediate cessation of all the antics. The first medication was a little heroic and, one great (?) writer says, "unscientific." I don't give a whoop how "unscientific" it may be if I get the result, and I sure get it. I gave that youngster 1-10 grain of apomorphine hypodermically. It *may* lack science, but what it lacks in that it more than makes up in effectiveness.

More than nine-tenths of these cases of hysteria are induced by autotoxemia from an overloaded intestinal tract. [I want to pat the doctor on the back for that state-

ment.—ED.] In about four minutes by the imitation ormolu clock that stood on the dresser that little lady was disposing of a miscellaneous collection of things that had been edible, ranging all the way from mashed potatoes to shrimp salad. Sour? Well, there may be things sourer, but if so, I never have run across them. Well, as you may have guessed, that emetic had the effect of getting rid of quite a fermenting mass in the upper intestinal tract.

Now for the lower portion. That girl got enough podophyllin, leptandrin and calomel to loosen up the entire *primæ viæ*, then she got enough of a saline laxative to drive all that was loose out of them. Then she got sulphocarbolates *ad lib.* The nervous condition was controlled by monobromide of camphor; but after I got through with that emetic there wasn't much nervous condition

left. O yes! I'm aware that certain of these cases are of uterine and ovarian origin, but it's a safe bet that the bowel is all mussed up with toxic products even if the generative system is at fault primarily.

Now don't get it into your head, please, that I am writing all this stuff to enlighten you in any way, because you'll be guessing wrong. I'm trying a new typewriter, and incidentally working off steam. Accept any, all, or none, of it just as you please, but whatever you do, do so with my compliments.

[We compliment Dr. Moody on—on his new typewriter! May the novelty of it never wear off; and may his high-pressure literary engine keep up a full hand of steam for many a day. We respectfully ask for "more."—ED.]

THE DOCTOR AND EMERGENCY SURGERY

The importance of better preparation for this kind of work. How the general practitioner should prepare himself for it, and some simple suggestions for everyday work

By A. O. WILLIAMS, M. D., Ottumwa, Iowa

THERE is no field in the domain of medical instruction that is so completely neglected as this. Works on surgery are filled to overflowing with discussions of great operations, when and how to do them, and each and every step of the technic is minutely described, large plates depict in vivid colors with such reality that "he who runs may read."

All the time and energies of the medical student are taken up fitting for the major operations. Only those few graduates who are fortunate enough to secure some interne hospital work have any chance to see and learn something in this line. It is not a fact that in acquiring an insight into major surgery all the essentials of emergency surgery are inculcated. On the other hand, all cases of major surgery are along certain lines, certain general principles and

rules are applicable to all, but emergency surgery is *sui generis*, each and every case possessing a personal equation. There is nothing new to be said about this subject, nothing but what is well and universally known; still, the results obtained are far below what they should be. And why is that? Because of carelessness and lack of preparedness.

Every practitioner of medicine should be in possession of a case containing all the essentials for emergency work, and this case should be used for nothing but emergency cases. If you persist in using this case daily, when you want it for a call it is not ready—you throw things into it in a hurry, and when you arrive at the scene of action you have forgotten one or two of the most important things. Never delay—make all haste when called.

But when you have reached your patient—now your hurry should be at an end. Take your time. Make no mistake. Do not talk too much. If the case is one of gravity, requiring an anesthetic, always send for counsel, for the purpose of advice and copartnership of the responsibility. Now you are being tried by the people—numerous sharp eyes are watching your every move. Never be frustrated nor surprised.

You need but little material for such work, but have it all first-class. Use nothing but gauze bandages and gauze in yard packages. Have catgut and silkworm-gut in proper containers. Have some needles that are new and sharp.

In dealing with wounds upon the face use small needles. Adjust the parts carefully. Use no dressings at all. Leave all wounds exposed to air. You will find the most wonderful recuperative powers of nature provided you do not disturb her processes. A chunk may be bitten from the ear, a wagon-wheel run over it or a brickbat pulverize it; still, if with every care the parts are carefully and accurately adjusted with a fine suture and sharp needle, union will be accomplished without deformity. Contused wounds are more difficult to handle than incised.

The Excess of "Cleanliness"

The doctrine of cleanliness has been so thoroughly inculcated in the last twenty-five years that it is almost impossible to keep water from these wounds. But do not wash them, nor any other wounds. Wash around and from them. Should there be a few foci of infection engrafted with the inception of the wound, water will tend to make untold foci by distributing the germs. A handful of seeds sown in one clump is easily killed, but if it is scattered over half an acre of good soil it is a difficult problem to exterminate the weed. Clean your wound with dry gauze, pick out all foreign material with a small dressing forceps. The infection comes from an unknown source, of unknown quantity and quality. Take it for granted that every wound is sterile—if not, no effort on your part can sterilize it. You

may easily infect, but you can not sterilize.

In dressing wounds taboo all and every kind of oil, grease, salves or ointments—they are all abominations and positively harmful in all wounds. In every case possible use no dressing, leave it open to the air; the exuded serum soon dries and crusts the wound over, a sure barrier against infection through which none can enter, and unless engrafted at the inception of the wound, there will be none.

The Various Injections—How Handled

Should infection be present, it will manifest itself by symptoms variable with its kind. The most common is pus-infection, which produces pain and fever, directly in proportion to the pressure, not the amount. For instance, a millimeter of pus under great pressure is productive of high fever and intolerable pain, whereas a kilogram in the tissues under no pressure is productive of no pain nor fever. Can this be located, then relieve the tension by incision. Never cut unless you are sure of circumscribed pus and can reach it with a knife.

A pure streptococcus infection is painless, but productive of grave constitutional disturbances. Nature seems unable to wall off this infection, and all cutting, squeezing or any motion seems greatly to intensify the virulence. Absolute rest of the parts, with moist hot dressings, is the thing. Anti-streptococcus serum is a snare and an expensive delusion if the infection is manifested, but doubtless it would prove a valuable prophylactic—and like the antitetanic serum, very potent only at the inception of the wound.

In all wounds use no dressings until such time as an infection reveals itself, when a constant hot moist dressing should be applied. When possible, use mild elastic pressure above, constricting the parts sufficiently to gorge them with blood, thereby favoring phagocytosis.

All burns come under the class of contused wounds, for treatment. It is a herculean task to knock out some of the old props upon which the laity and medical profession have so long leaned. There seems almost

an insane delusion on the part of the medical profession to cover burns with some grease, carron oil or olive oil, or some special lauded ointment. Use hot saturated solution of baking soda. This soon relieves the pain. Never apply over an extensive surface any patent dusting powder, for many of them contain acetanilid. These dressings may be gradually discontinued, and in a few days all dressings left off. Remember, however, when much surface is burned, that some device of wire gauze must be extemporized to hold the cover away and the room must be kept at 85 degrees temperature.

The more abundantly a part is supplied with blood just in such proportion is its germicidal power manifest. The peritoneum can handle the greatest quantity, next the scalp, while the joint-structure is unable to cope with the least particle of infection. Your fractured patella at the end of seven days is gorged with blood around and in the tissues, the capillaries have been enlarged. You can now suture the broken fragments with every hope of success, whereas had this been done on the day of accident, your efforts would have failed by reason of infection. Nature has endowed us with countless myriads of well-drilled vigilantes whose office is to eject promptly noxious hosts, but when hampered at their exit portals by grease or tight bandaging, the tide may be turned back into the system with disastrous results.

Punctured Wounds and Smashed Fingers

The punctured wound may be a source of trouble and great danger. If you are certain the knife is clean or the nail bright and new, little attention need be given them, but should there be any possibility of infection, the wound should be laid open under an anesthetic and its course burned with pure carbolic acid. Should this puncture be from a thorn of an old rotten stump or nail in a horse-barn, there is a possibility of tetanus. Therefore open up the wound, apply a 2-percent solution of silver nitrate, and inject a dose of antitetanic serum. If you can feel or see any foreign bodies, take

them out, if not, use an x-ray. Two or three skiagraphs from different points will locate them, and when located, with ample assistance and an anesthetic go for them and get them.

Never amputate smashed fingers—you can save all of them. Pinch off protruding bone, carefully trim off devitalized tissue. Do not stitch the parts together, leave them open for drainage; do not crowd gauze into every crook and crevice; do not bandage with any pressure at all; do not try to wash them, they are clean enough—don't be afraid of grease, for lubricating oil is all made from petroleum, no lard oil is being used at all now. The black dirt from the engine, the machine shop, the coal mine, is far less harmful than rubbing and scrubbing with soap and water and brush. Bichloride, carbolic acid, iodine, boric acid, all are positively harmful and should never be used in fresh wounds.

Do your skin grafting early; don't wait for the surface to granulate over if you wish your grafts to grow. Select them from the patient, if possible; have them large enough to contain true skin, as the epidermis all sluffs off. Apply the grafts carefully and leave them absolutely uncovered, then they will always grow.

Sprained Ankle and Simple Fractures

In sprained ankle immerse the joint in hot water for a few hours, then if the pain be excessive, apply an ice-bag over the painful area. In twenty-four to forty-eight hours, as soon as the intense suffering has subsided, apply a figure-eight adhesive, in such a manner as to immobilize the joint and allow its resting in a comfortable manner on the floor. The patient should begin to walk on the joint as soon as strapped. In ten days to two weeks he will be able to resume work. Change the strap every few days, and allow it to remain on six weeks.

The *bete noir* of the medical profession is Colles' fracture. Stimson, in a recent work on fractures, has devoted thirty-five pages to this, describing conditions that may possibly have been found. Remember that these comprise nearly half of all the fractures you

will meet. Ninety-five percent of all injuries to the wrist-joint are radial fractures, and they are all received in the same way; in falling the arm is thrown out, the impact being received on the ball of the thumb and then conveyed through the scaphoid bone into cancellous tissue of the radius, which gives way by impaction. In many of these cases little or no deformity is manifest. There is a bending of the tuberosity of the radius from its fellow bone and as a rule a splinter projects toward the ulna. The normal association of these bones is intimate, and as nature throws out her splint for repair, she crowds the ulna out, thus more fully accentuating the silver fork. In the aged the splint is never absorbed and will always present a deformity in spite of your surgical skill. Unfortunately it is just the aged who are so prone to this distressing accident. These fractures are lacking in the cardinal

symptoms, motility and crepitus. In the treatment of them never forget to apply a sufficient force, always under anesthesia, completely to break up the impaction, when you will have crepitus and motility. If properly adjusted, it matters little whose splint you use, your results will be good.

In all emergency cases handle the wounded with the greatest of painstaking care. Always be sure you are right, and then go ahead. Have plenty of the best material and good assistance. Never hurry—no injury, however insignificant, to which you are called, but to which you should give your best efforts as though you were doing a laparotomy. Eliminate from your vocabulary the word "minor surgery", and remember a bruised finger or mashed scalp is worthy the skill of a great master, which you may not attain, yet can at the least emulate.

THE SOCIAL EVIL AND ITS REMEDIES

This paper, which was read before the Medical and Surgical Society of Louisville, Kentucky, is a direct arraignment of the social conditions which are responsible for society's greatest vice

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III

VENEREAL prophylaxis has received, of late years, considerable attention.

The measures advocated may be broadly divided into two classes, to wit:

1. Prevention of infection of the prostitute and her patron.

2. Prevention of the infection of the innocent.

The plans proposed have always seemed to me to be traps to catch unwary scientific gudgeons. Is it not the duty of the physician to suggest continence rather than antiseptics to patients who seek advice on the question of prophylaxis? In the case of inexperienced youths our duty is plain. It is criminal to remove the only inhibition

—the fear of consequences—that exists in many individuals. The suggestion of continence is thrown away upon the experienced man, yet it is our plain duty to give it.

That it is the duty of the medical profession to endorse prostitution and to constitute itself an assurance association which shall remove one of the most potent checks upon the spread of the social evil known to humanity I do not believe. It is my firm belief that the increase in patronage and the moral effect of the tacit endorsement of prostitution thereby involved would more than offset any possible advantage that could accrue. The profession cannot assume precisely the same attitude toward venereal diseases that it does toward typhoid, yellow-

fever and the exanthemata without assuming a moral responsibility it can ill afford. The physician certainly should not put himself on record as believing that fornication is as much a part of human necessities as is food, clothing and exercise, nor is it the duty of the profession to supervise the venereal life of man and make his immorality sanitary, just as it has tried to make his food and drink and habitation.

The burden of proof of the value of prophylaxis lies upon the shoulders of its promoters. In order to maintain the cogency of their position they must show beyond cavil (1) that prostitution itself is not increased by it; (2) that immorality of youth is not increased by it; (3) that the sum-total of venereal disease, including syphilis, is lessened; (4) and as a corollary of the foregoing, that fewer infections of the innocent result.

That prophylaxis of infection of others by the speedy and thorough cure of afflicted individuals is the duty of the profession goes without saying. Even this, if done ostentatiously, is open to impeachment. The dispensaries to which Parisian prostitutes are consigned for treatment are daily surrounded by men who seek women whose discharge from custody, theoretically cured, is accepted as a guarantee against danger.

It is the duty of medical men to impress upon the laity the grave dangers of venereal disease, and especially the long duration and protracted infectiousness of deep-seated gonorrhea and syphilis, involving, as they do, the necessity for immediate and thorough treatment. In this enlightened age there is no more room for the *ignoramus*, either professional or lay, who believes that gonorrhea is a trivial and easily curable disease, "no worse than a bad cold," than for him who claims syphilis to be incurable. Special hospitals or special wards in all general hospitals for the treatment of venereal diseases are demanded in every large city. Let our wealthy philanthropists take notice.

Should the venereal hospital be a "lock hospital," and part of a system of compulsory sanitary inspection?

After a careful analysis of all the arguments pro and con, with reference to sanitary regulation of prostitution, I have arrived at the conclusion that such a system is not practicable in America. Paternalism and interference with individual liberty are so unpopular in this country that legal and sanitary measures of repression or regulation of prostitution must of necessity fail. That they have been a success in Europe, as many claim, is, to my mind, absurd, in view of certain statistics. In Paris only ten percent and in Berlin and Vienna (Mueller-Nieman) less than fifteen percent of the entire estimated number of prostitutes have been subjected to registry and control.

Regulation and inspection invariably increase clandestine prostitution, and as the greater relative infectiousness of the clandestine as compared with the professional prostitutes is as 31.65 to 13.47, the inference is obvious! Statistics of the frequency of venereal disease I consider to be worse than valueless as an argument in favor of regulation—they are pernicious.

As a broad general proposition, I believe that, while voluntary submission to inspection by prostitutes should be encouraged and public institutions for the cure of venereal diseases should be established, any measures of compulsion must necessarily not only fail but are bound to become a pernicious factor in the social and political systems of our large American cities.

Licensing or segregation or any recognition of it as an institution I believe to be absolutely inimical to the welfare of society. The campaign against the social evil should be conducted along medical, educational, moral and philanthropic lines, absolutely divorced from legal and political measures of coercion, save in so far as the social evil may be a factor in crime or social disorder or may obnoxiously parade itself before the public eye.

It has been claimed that in British India prostitution increased after the removal of control, and that the proportion of venereal diseases doubled among the soldiers thereafter. This may be true, but what prevails

in India under militarism is no criterion for America, nor for any large cities. The source of supply of women at some army posts is extremely localized, and control of the special class of women patronized by the soldiers is easy and effective, as compared with the control of the prostitutes of a large metropolis and their patrons. As to the accuracy of the Indian statistics, it is suggestive that their compiler also claims that lues has become much more malignant since regulation ceased. If the analyst of the statistics was no more accurate in his figures than in his fantastic ideas of the conditions determining the malignancy of lues, his conclusion would best be taken *cum grano salis*.

Prostitution in America

The most thorough and logical discussion of American prostitution and its causes and remedies that has thus far appeared is the report of the New York "Committee of Fifteen." ("The Social Evil:" G. P. Putnam's Sons Company, New York.) The Committee's conclusions and recommendations are well worth quoting, and the perusal of the complete report should be profitable to anyone who desires a more exhaustive discussion of the regulation-question than the scope of this paper permits. In abstract, the Committee says essentially as follows:

1. The evidence shows that extant European regulation is not a remedy for prostitution, nor even for its incidental physical ills.

2. Moral considerations alone suffice to stamp as intolerable compulsory sanitary inspection of prostitutes for the purpose of making vice innocuous.

As an outline of a practicable policy of dealing with the subject, the following is submitted.

1. Strenuous efforts should be made to prevent tenement-house overcrowding, which is a prolific source of immorality, and to provide better home environment for the poor.

2. The establishment by public or private enterprise of pure and elevating forms of

amusement as a substitute for low-class dance halls, music halls and theaters which serve to stimulate sensuality and debase taste.

3. The amelioration of those conditions of the wage-earning class which tend to produce immorality through sheer physical want.

4. The establishment of institutions for the treatment of venereal disease.

5. The stern repression of all public display of prostitution.

6. The creation of a special body of "moral police" to whom should be entrusted all the duties entailed by the adoption of the foregoing recommendations.

It is to be regretted that the Committee of Fifteen did not touch upon the questions of physical training and educational measures in the prevention of prostitution.

The Baneful Street-walker

Apropos of the treatment of the social evil a word must be said regarding the custom of street solicitation. This is a flagrant source of immorality and disease. At present all that is done in Chicago is to "round up" and fine the street-walkers at stated intervals. The frequency of the "round-ups" depends upon the police estimate of the ability of the women to stand assessment. The street-walker is very popular with the police and a never-failing source of income both to the police and alleged "hotels" of certain districts. She is a stench in the nostrils of decency, but in all great cities she, like her more affluent sister of the red-light district, is necessary to police affluence.

The street-walker should become a thing of the past. The inexperienced lad and the country "Reuben" alike fall victims to her wiles. As an institution she is a reflection upon humanity. But what shall be done with her? She can rarely be reformed, and she must have clothes, food and lodging. Let her be given an opportunity to earn an honest living in some industry under municipal control and ownership. Should she refuse, she should be given her choice between the seclusion of the brothel, or unob-

trusive clandestine life, and the house of correction.

First of all, I repeat: The excuse of hunger and cold must be done away with, by providing her with means of honorable self-support. She should not be compelled to work, but given the opportunity to work. If she declines it, let her then retire from public view as best she may or suffer the consequence. A fine, which is merely a percentage commission paid for the privilege of infamy, and makes the municipality and its officers copartners in prostitution, is a satire upon humanity and morals, and an outrage upon misfortune.

Any special tax, license or other, placed upon prostitution, either stamps it as a moral and legitimate occupation or places the authorities on the plane of copartnership in prostitution and immorality. Those who argue in favor of a license system may take their choice. Either horn of the dilemma would be a moral and social disaster.

If there is any method of medical inspection of prostitutes that will stand the fire of criticism on moral, ethical or pathologic grounds, I do not know what it is. Here, again, the medical profession is asked to constitute itself an assurance association for the benefit of the prostitute and her patron. We are asked to give a guarantee which we cannot give, because of the numerous sources of fallacy of inspection, even granted that it be carried out with conscientiousness and honesty—which I unhesitatingly affirm to be impossible.

The possibilities of political skullduggery and graft that suggest themselves in considering the inspection of prostitutes are in themselves so enormous that it seems to me that the plan should be condemned *in toto* by every rational mind.

From sentimental considerations alone any man who takes pride in his profession should condemn all methods of medical inspection. If there is a lower, more contemptible role that could be played by a medical man than that of official inspector of bawds, I do not know what it is. As compared with such an occupation, that of

professional abortionist or the advertising newspaper fakir would be kingly.

Good Advice to the Parents

Literature for the young should be censored. Intellectual meat for strong men is often deadly moral poison for youth. Openly prurient literature is not so dangerous as some productions that masquerade as classics, the latter being generally endorsed, and the social status, refinement and intellectual development of the characters depicted therein being thrown upon the mental screen of youth as something to be admired and emulated. The daily press is a very pernicious element in the life of youth. If there is a modern newspaper that can safely be left in the same room with a normal boy or girl at the age of puberty, I should be glad to hear it mentioned.

The rotten modern play demands its full share of attention. The play with a moral is often a mass of filth in which the pearl of morality is so deeply imbedded that youth cannot be safely trusted to dig the gem from its vile surroundings. The reply of the wily manager to an attack along these lines is that he gives the public what it demands. His position is as rational as would be that of a nurse who should give a young child green apples simply because he asked for them. To save further argument, I will state that in my opinion he is an infernal liar—and he knows it. The prurient play is a sop thrown to the Cerberus of cupidity and gratifies the instinct of his own dirty mind.

Physical training of youth is one of the most important therapeutic measures in the supervision of sexual vice. The boy whose muscles are daily properly trained, i. e., to the point of physiologic fatigue, is much more amenable to moral persuasion and less likely to have vicious instincts than the neurotic, weak boy, whose unstable nervous equilibrium constantly keeps him in a position of danger.

Parents should guard carefully against vicious and demoralizing comradeships. Close intimacies among children should be

avoided, where possible, and all social pleasures carefully supervised at the age of puberty. Sexual impressions made at this time may permanently pervert the psychosexual centers. Long before physicians had common-sense enough to investigate this subject, general literature depicted the dangers of close intimacies of boarding schools and colleges.

Dangers of Boarding Schools

In a general way, the boarding school is a very dangerous proposition. Wine drinking, cigaret smoking, profanity, card playing and sexual vices often are indulged in both by boys and girls. The tendency of segregated human beings is to sink to the level of the lowest, rather than rise to the plane of the highest. Just as a single microbe may produce serious tissue infection, so may a single vicious boy or girl act as a center from which radiates incurable infection of hitherto decent children. Teachers should remember this and guard against the danger.

I recently had under my care a girl of seventeen, a pupil of a certain fashionable boarding school, who not only had gonorrhea but what was worse, the manners of a demimondaine. She spoke glibly of "our set" at school—a set that smoked and drank and told vile stories.

Two cases of girls who became *enceinte* while at boarding school have come under my observation. If betrayed innocence was responsible for their downfall, these girls must have learned the manners of the streets very quickly, for they were the type that may be seen every night in the shadow spaces of our downtown streets.

The evils of alcoholism should be impressed upon both boys and girls. Man has ever found alcohol an able lieutenant in his campaign against female virtue. Moderate indulgence, of which she dreams, is likely to be realized in the first man who pays her attention. Propinquity builds ideals—sometimes dangerous ones. All depends on whether he whom she idealizes is trustworthy. Her conception of the ideal is merely the maternal instinct plus a con-

catenation of early ovarian reflexes—physiologic in foundation, but perverted and distorted by hothouse literature and other environmental evils—associated with puerility of judgment and absolute inexperience. Such ideals are usually misleading, and often disastrous. When Voltaire said, "Every woman has her quarter of an hour," he slandered the sex, but he unconsciously made obeisance to the maternal instinct and the ovarian reflex. Character study and the development of discrimination should precede the building of ideals. The idealized of today is perhaps the despised of tomorrow. Love at first sight often leads to divorce at second sight.

Fallacious notions of the ideal and incomprehension of the principle of self-preservation are responsible for a most dangerous peculiarity of young women. The man who is stamped as dissolute and depraved has often an absolute fascination for them. Given the same or less favorable opportunities, and the reprobate can usually win a girl away from a large field of decent and orderly competitors. Warnings and an exposé of the true character of the man rarely do more than hasten the wedding-bells, or worse. The author of the story of the snake in Eden knew woman-nature, however ignorant of science he may have been. Eve would have fallen sooner if she had had a mother to warn her—probably there would have been no fall if God had not warned her.

Young girls should be given to understand that, while a happy marriage is the natural fate of woman, spinsterhood is not only no disgrace but far preferable to an unhappy marriage, which for discomfort must discount hell. They should understand that a happy marriage is not always the outgrowth of a youthful ideal. Ideals do not always stand the fire of connubial experience. The physical and intellectual attractions of the girlish ideal are often an insecure foundation for future happiness and comfort. The idea that *marriage is a partnership for the battle of life* should dominate woman's mind. I am well aware that, as matters stand at present, woman has relatively little voice in selection. Such voice

as society permits her to have, however, she should, most assuredly, exercise to the full.

The hazard of matrimony has attracted the attention and study of some of our most profound thinkers. The suggestion of "time contracts" in marriage—which in effect is probationary marriage—by so eminent a student as Professor E. D. Cope, is not without meaning.

From whatever angle the moralist may view matrimony in its relations to sexual vice, the man who marries a face and the woman who marries a pocketbook are serious matters for consideration.

So far as matrimonial infelicity in the relations to prostitution is concerned, I do not believe that morality can be conserved by making divorce more difficult. This puts a penalty upon unavoidable mistakes in matrimonial selection. There should be no impediments to divorce where harmonious relations are impossible, providing that, where there are children, due and satisfactory

provision for their support and training is made, and further, providing the man is compelled to care for the woman where she is not proved to be at fault.

The sooner the world comes to regard marriage as a civil and social contract upon the fulfilment of which rests the very foundation of society, the better for the human race. The "divinity" of matrimony is as absurd as the cosmogony of Genesis, from which its theory was derived. As a human institution, it deserves all the consideration that philosophic altruism can give it. As a "divine" institution, it is open to impeachment.

The "sanitary" marriage, of which sociologic idealists are wont to dream, will never be realized so long as the idea of the alleged divinity of matrimony permeates society. When matrimony is shorn of its theologic bias and resolved into its true status as the sheet-anchor of society, eugenics may have its day.

CAULOPHYLLUM THALICTROIDES

A study of "squaw root," especially with reference to its pharmacologic actions and therapeutic uses. In uterine affections this remedy is shown to be peculiarly efficacious

By J. M. FRENCH, M. D., Milford, Massachusetts

CAULOPHYLLUM thalictroides, commonly known as squaw-root, pappoose-root, and blue cohosh, natural order Berberidaceæ, is a smooth, glaucous plant, purple when young, having a high, round stem, which appears as the stalk of the compound leaf (whence the name, from the Greek *kaulos*, stem, and *phyllon*, leaf, stem-leaf), growing from one to three feet high, with biternate or triternate leaves, and small, yellowish green flowers, and very hard, blue seeds, as large as peas. It grows wild in woods from Canada to Carolina and Kentucky.

Its uses by the American Indians were first made known to the whites by Peter Smith, an advertising Indian herb doctor,

through the medium of an irregular publication issued by him in Cincinnati, in 1813, and known as "Medical Facts," but it was formally introduced into medicine in 1828 by Rafinesque, who refers to Smith as his authority. In 1852 it was brought prominently before the eclectic branch of the profession by Dr. John King, who gave a description of the plant and its uses in his American Dispensatory, the first edition of which was issued in that year. Since that time it has been used increasingly by the eclectics, and has also been extensively used by the homeopaths, but is still but little employed by the regular school.

As showing the comparative estimate put upon this remedy by the different schools

of medicine, the following statements, taken from standard textbooks of the several schools, will be of interest.

"*Caulophyllum* has not yet been made the subject of experimental work by reliable observers. It was much used by the aborigines of this country in all affections to which their women were peculiarly subject, and was known among them by the name 'squaw-root.' It is said to produce intermittent contractions of the gravid uterus, to have diuretic, emmenagog and antispasmodic powers; and is used as a remedy for deficient labor-pains, spasmodic after-pains, spasmodic pains in the uterus at any time, spasmodic dysmenorrhea, and pains in other organs seemingly in sympathy with uterine affections. It has somewhat of a reputation in acute rheumatism of the hands and fingers, and as a preparative medicine for labor."—Potter.

"*Caulophyllum* exerts a very decided influence upon the parturient uterus, stimulating normal contractions, both before and after delivery. Its first use in this case is to relieve false pains; its second, to effect coordination of the muscular contractions; and third, to increase the power of these. The first and second are the most marked, yet the third is quite certain. Still, if anyone expects the marked influence of ergot, he will be disappointed. I judge that it exerts its influence through the hypogastric plexus; though to some extent it influences every process controlled by the sympathetic. Acting in this way, it influences the circulation, nutrition, and functions of the reproductive organs. I have employed it in chronic diseases with some advantage; but further study is necessary to point out the particular cases. It may be used with good effect in some cases of nervous diseases, especially in that condition known as asthenic plethora. As a remedy for rheumatism it is inferior to macrotys, but in some cases it exerts a better influence."—Scudder.

"*Caulophyllum*. This is a woman's remedy. Want of tonicity of the womb. During labor, when the pains are deficient and the patient is exhausted and fretful. Besides, it has a special affinity for the smaller joints.

"*Stomach*.—Cardialgia, spasms of stomach. Dyspepsia, with spasmodic symptoms.

"*Female*.—Extraordinary rigidity of os. Spasmodic and severe pains, which fly in all directions; shivering, without progress; false pains. After-pains; leucorrhea, with moth-spots on the forehead. Habitual abortion from uterine debility. Needle-like pains in cervix. Dysmenorrhea, with pains flying to other parts of the body. Lochia protracted; great atony. Menses and leucorrhea profuse.

"*Skin*.—Discoloration of skin in women with menstrual or uterine disorder.

"*Extremities*.—Severe drawing, erratic pains and stiffness in small joints, fingers, toes, ankles, etc. Aching in wrists. Cutting pains on closing hands. Erratic pains, changing place every few minutes."—Boericke.

Ellingwood tells us that this remedy must be long continued to obtain the best results. The last three months of pregnancy constitute its great field.

The Constituents of Caulophyllum

The constituents are variously given by different authorities, and evidently have not been definitely determined. Some observers claim to have discovered an alkaloid, the existence of which is doubted by others. Lloyd has obtained a glucoside, which he has named leontin, and which occurs in pure, snow-white, feathery or silky crystals, resembling quinine. This he has prepared in the form of an aromatized liquid, known as Lloyd's leontin, containing a one-percent solution of the glucoside, which he recommends as a valuable remedy in amenorrhea and dysmenorrhea; especially if the amenorrhea is due to congestion, as from exposure to cold. He also claims to have separated an amorphous alkaloid, caulophylline, which is a glassy substance, colorless, tasteless and odorless, which does not, however, possess the characteristics of caulophyllum. There are also two resins. It is evident, however, that not any one of the active principles discovered possesses the essential virtues of the drug. This is more nearly approached by the concentration,

caulophyllin, which is used for the same indications and with substantially the same results as the best liquid preparations of the drug.

Much has been written concerning this drug, and it has been advised for many uses. It is probable, however, that its most important uses, the conditions for which it is better than any other known drug, are limited within a comparatively narrow field.

1. Its field of action.—The most important action of caulophyllum is exerted through the medium of the hypogastric plexus of the sympathetic nervous system, upon the reproductive organs of the female.

It also acts in a less direct and powerful way upon all the processes of nutrition.

2. The nature of its action.—The most prominent effect produced by caulophyllum is that of an antispasmodic, by virtue of which it relieves irritability, prevents spasm, and strengthens normal muscular contraction. It is also claimed to be emmenagog and parturifacient, and secondarily diuretic, diaphoretic and expectorant.

1. Used during the last three months of pregnancy, it constitutes an unequaled *partus preparator*, relieving the irritability and preventing the distressing sensations which are common at this period, prolonging the period of gestation until the full development of the fetus, strengthening the parts concerned in accouchement, and preparing the way for normal and easy labor. It was used by the Indians in the form of a decoction of the root, which was given to the squaws for two or three weeks previous to labor, for the purpose of facilitating childbirth. This was the use of cohosh which was first made known to the whites through Peter Smith, the Indian herb doctor.

2. During the progress of labor it relieves false pains, coordinates muscular contractions, and increases their strength. Next to its employment as a *partus preparator* this is its most important use.

3. During the last stage of labor and the hours immediately following it prevents hour-glass contraction of the womb and relieves the characteristic after-pains.

4. In the diseases of women outside of pregnancy and labor it is useful in the amenorrhea of young women; in painful menstruation, especially spasmodic dysmenorrhea; also to relieve the irritation of the reproductive organs dependent upon congestion, to control chronic inflammatory conditions, and to impart tone in cases of debility. The emmenagog principle of caulophyllum is well represented by the glucoside, leontin.

5. Outside the sphere of the sexual organs it has been used in many conditions, such as chorea and epilepsy due to diseased states of the genital organs and functions, flatulent and spasmodic colic, cramps, obstinate hiccough, cystitis, urethritis, chronic nephritis, gastric nausea and vomiting. For the most of these uses, however, it is probable that there are better remedies than caulophyllum.

Its Specific Indications

These are thus stated by Felter and Lloyd: "Uterine pain, with fulness, weight, and pain in the legs. Fulness of the tissues as if congested. Debility (irritability) of the nervous system, with impaired muscular power. Spasmodic muscular pains; articular pain; rheumatic pains of asthenic plethora; epigastric and umbilical colicky pains; dull frontal headache; great thirst; as an oxytocic; to relieve false pains and uterine irritability; sexual debility with excitability; spasmodic uterine contractions; dysmenorrhea; irregular menstruation; crampy pains in stomach and bowels after eating; pains in toes and fingers not due to tissue changes."

The crude drug is employed in doses ranging from five to forty grains, and the fluid extract in corresponding doses.

The dose of specific caulophyllum and the normal tincture is from one to ten minims, and is usually repeated every one or two hours.

Caulophyllin, the concentration, is used in 1-6-grain doses every ten minutes until effect, then less frequently as long as it is desired to keep up the effect.

The tincture to the third attenuation is employed by the homeopaths.

EYE SYMPTOMS IN GENERAL DISEASE

This is the second article of a series in which will be discussed the diagnostic and prognostic importance of a careful study of the eye, from the standpoint of the general practitioner

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III.--EYE-SYMPTOMS OF SACCHARINE DIABETES

IN our former paper we reminded ourselves that retinitis, neuro-retinitis, iritis, cyclitis, and irido-cyclitis, as well as various pareses and paralyses of the ocular muscles, are not infrequently the result of inflammation of the kidneys. Now, it is also true that all these ocular affections may be the result of diabetes mellitus; then, in addition, the same general affection is at times responsible for cataract and keratitis.

Retinal Evidences of Diabetes

First, as to the retina and optic nerve. In the article on the ocular symptoms of Bright's disease we saw that in retinitis, of any sort or kind whether due to albuminuria or to any other affection or even idiopathic, the retina becomes in places opaque and also suffers contraction and softening of its arteries, together (often) with more or less numerous hemorrhages.

Now, how does the retinitis of glycosuria differ from the retinitis of Bright's disease? Chiefly in this: that in retinitis diabetica the whitish patches of opacity are nothing like so numerous but are very much larger than in the form of retinitis due to Bright's disease. They are also not so likely to occur in the region of the macula lutea, and, when they do appear in that district, are not so prone to assume the stellate, or radiating, arrangement.

The tendency to hemorrhage is greater and the individual hemorrhages are likely to be larger in amount than in nephritis—hence there is much more likely to occur a hemorrhage into the vitreous. The optic papilla and nerve, however, are much less likely to be affected.

The retinitis or neuroretinitis of saccharine diabetes appears, like albuminuric retinitis,

in the chronic affection only, but, unlike the albuminuric cases, in glycosuria the retinal troubles are restricted almost exclusively to persons over forty-five years of age.

The appearance of retinitis in diabetes is a very bad prognostic. These patients, as a rule, soon die.

It is just worth while to add that, for a time, a number of authorities maintained that retinitis in glycosuria was the result of a coexisting Bright's disease. This view, however, though heard from still at intervals, has really long been abandoned.

The iritis, cyclitis, and iridocyclitis of diabetes are generally very mild; nevertheless, in time these ocular complications often result in a destruction of the sight. It is therefore incumbent always upon the general practitioner to watch his diabetic cases carefully for any sign of these affections, because, by prompt and careful treatment, the sight can often be preserved. Adhesions of the iris to the lens (posterior synechiæ) occurring after the physician has come in charge of a case of diabetes, are nearly always inexcusable. The greatest danger is that a careless observer will miss the diagnosis of iritis, etc., taking it as a matter of course that his patient has diabetic retinitis or neuroretinitis and will not think the fight for vision worth the trouble.

Ocular Paralysis Following Diabetes

The various ocular paresis and paralyses occurring as the result of diabetes mellitus (or indeed from any other cause) constitute a topic of never-ending interest—but of so great complexity and nearly infinite detail that the matter cannot be considered in this place. Suffice it that, whenever a young person becomes presbyopic (old-

sighted) or a person over forty years of age becomes old-sighted too fast—i. e., has to change his spectacles too frequently—the urine should invariably be tested for sugar, unless some other explanation of the rapid increase of old sight is known to an absolute certainty to exist.

The two affections of the eye occurring as a result of diabetes which never result from nephritis are *cataract* and *keratitis*. Cataract is a frequent complication of diabetes mellitus: the causative connection is no longer doubted at all. In fact some authorities say that cataract is the commonest ocular complication of diabetes, exceeding in the frequency of its occurrence even retinitis and neuroretinitis. The percentage of diabetic patients who suffer from cataract was placed by Von Graefe at twenty-five percent; and by later authors the percentage is set even higher. This complication occurs most frequently in patients over forty-five years of age, but may take place (though rarely) in young children. It occurs not only in severe cases but also in those in which the general nutrition has hardly seemed to suffer. In children a diabetic cataract forms quickly and ripens in a very few weeks.

Things to Remember about Diabetic Cataract

Perhaps the most important thing for a general practitioner to remember in connection with diabetic cataract is that the old-time assertion that an operation on a diabetic cataract is likely to be followed at once by coma is positively untrue. In fact, this ill-considered, but very enduring, statement is perhaps the most absurd that ever was made in medicine by men who were really

authorities. Probably, many years ago, somebody who extracted a cataract for a far-gone diabetic patient was horrified to see that patient passing shortly into coma. He reported his case, suggested the possibility of the operation having precipitated the coma, and then, always, whenever a subsequent writer had had a similar case, that case was selected from the great mass of that writer's other cases and reported, and so the false impression grew.

It can now be stated as an absolute fact that, although a diabetic patient may indeed become comatose after a cataract operation (there is nothing in the operation to *keep* him from becoming comatose), the operative procedure has nothing whatever to do with the setting in of coma. On the other hand, patients with diabetes often live for years, and it is an outrageous shame and pity that these poor people should have added unto their other afflictions the unspeakable calamity of blindness. One of my earliest cataract cases was that of a two-sided diabetic cataract in a young child. Cataracts in children are always soft, and are not removed by extraction but by needling. I needled both the cataracts of this little girl, and she had fair vision in each eye for the remainder of her life, which happened to be somewhat extended.

Diabetic keratitis requires no special comment other than to say that it occurs in fifteen to twenty percent of all cases of diabetes, either severe or slight, and that, whenever a doctor has a case of keratitis the cause of which is doubtful, he should test the urine for sugar, and not delay about it. Thus a life may now and then be saved as well as a pair of eyes.



THE OBSTETRICAL EXAMINATION

This article is the second in a series on "Every-Day Obstetrics". In this series the obstetrical problems will be discussed from the practical point of the "every-day" doctor

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ON arriving at an obstetric case, after a few preliminary inquiries as to the length of time the patient has been in labor and the frequency and severity of the pains, the doctor should proceed without delay to make a careful examination. Of course, if there have been any unusual circumstances connected with the pregnancy tending to suggest abnormal conditions, the patient should have been examined weeks before. I am speaking now of the usual routine.

Shall the Doctor Make a Vaginal Examination?

Within the last few years it has been suggested that this examination at the beginning of labor, and all examinations during labor, should be exclusively external, by palpation, percussion and auscultation, entirely avoiding vaginal examination because of the supposed danger of carrying infection to the patient. There is little likelihood of a procedure so uncertain and impracticable being generally adopted. Infection can be avoided by proper asepsis, and the obstetrician of the future will continue to rely mainly upon vaginal examination for the knowledge of the conditions and progress of his labor cases.

This is one of the instances where the plain common sense of the majority will overrule the theories of the few, however plausible. The uncertainty of the doctor's knowledge of the conditions if he denied himself the advantages of digital examination, would jeopardize far more patients than does the present custom with proper asepsis. External examination may properly be used in addition to vaginal exploration, but cannot take its place as a substitute. There are

many cases where the doctor needs all the information he can get from both methods combined.

The Sterilization of the Hands

The proper sterilization of the doctor's hands is the first step, and an exceedingly important one. Indeed, I am inclined to think that this is probably the *most* important part of the technic of obstetrics. The methods of preparing the hands that are in common use are defective, because of the too great reliance placed upon the efficacy of the scrubbing brush. This useful instrument has its limitations. It can cleanse the surface of the skin very well; but this is not all that is needed.

The skin is not simply an even surface. Thousands of little tubes run down into its substance: the ducts of the sweat-glands, of the sebaceous glands, and the hair-follicles. These tubules are large enough and deep enough to form the lodging places of millions of germs when handling infectious diseases, and it is easy to see that they could not be readily dislodged from these ducts by the action of a brush.

Sometimes when I have seen cases of puerperal septicemia in the practice of men who are known to be careful and conscientious, I have wondered whether the source of infection may not have been along these lines. Singularly enough, while I have seen reference made in textbooks to the possibility of germs being lodged in the pores of the skin, I cannot recall ever having seen a word about the *inefficacy of the brush* as a means of dislodging the germs from this snug nest.

Is there, then, any better means available? I believe there is. Most of us can remember how, in childhood, we used to astonish

some inexperienced playmate by showing him how we could squeeze "worms" out of the tip of the nose. Of course these "worms" were simply accumulations of sebum in the ducts of the sebaceous glands. The tip of the nose is subject to so little movement or pressure that the sebum is not worked out as fast as it is secreted, as is the case in other parts of the body. Here, then, is the suggestion of a method for dislodging germs from the pores of the hands, viz., *manipulation and pressure*; and if we add to these *lubrication*, we have, probably, the most effective combination that could be devised. In other words, if we lubricate the hands thoroughly with soap and hot water, and then subject them to prolonged rubbing and squeezing and stripping of the fingers, we shall probably secure as thorough cleansing of both surface and pores as it is possible to get. I do not object to the use of the brush by those who want it, but I do insist that something more is needed. I seldom use a brush myself because I think the above a surer method.

The Cleansing of the Finger-Nails

Particular attention should be given to the cleaning of the finger-nails. Here, too, I believe that the customary methods are capable of improvement. Cleaning under the nails with a knife or any sharp instrument is objectionable because it leaves the tissues more or less lacerated and rough, and, therefore, more difficult to cleanse next time. The nail-brush, also, gives unsatisfactory results. It is an instructive object-lesson to fill the space under the end of the nails with some black substance, like shoe polish, and then try to remove it with a nail-brush. You will lose confidence in the instrument.

To clean under the nails one may use an orangewood stick, or else the nails of the opposite hand. I prefer the latter, and seldom use anything else. By a clawing movement on a piece of soap the space under the nails may be filled and then with the aid of the nails of the other hand both soap and dirt may be removed. The process should be repeated several times to insure thoroughness.

This method cannot be followed if the nails are kept trimmed to the quick. But this should not be done. It is a bad habit from every point of view. It spoils one's grip; it makes it difficult to pick up small objects like a needle, and it makes disinfection harder. At least a millimeter of free nail should always be left. Of all men, the obstetrician should learn how to care for his nails and keep them in good condition. They should never be cut except with a very sharp knife after softening them with soap and hot water.

The Proper Care of the Finger-Nails

It is better to avoid the use of scissors, clippers, or any instrument tending to crush or bruise the nail. If the nails are brittle they should be anointed daily with sweet oil or vaseline. If those who have trouble with their nails will try the above suggestions they will be surprised to see how quickly the nails respond to careful treatment. The treatment usually given by manicures is scarcely what is needed by the obstetrician. He is after efficiency; the manicure aims at beauty.

The sulcus on top of the nail where the skin overlaps it, must receive careful attention. Here the brush can do effective work, because the place is accessible; but if no brush is at hand the stick or the nail will do just as well.

To sum up, then, the hands may be thoroughly cleansed by the use of soap and hot water, using no other instruments than those which nature has provided. To the busy practitioner this is a great advantage because he occasionally finds himself in an emergency where he must make a delivery without his obstetric bag at hand.

The Best Antiseptics and Proper Lubricants

The hands having been thoroughly cleansed with soap and water, most obstetricians prefer to soak them in some germicidal solution. This is a good routine practice to make assurance doubly sure, although it is probably superfluous if the washing has been thoroughly done. I have made hundreds of deliveries, with no other antiseptic than soap and water with no bad

results, but when an antiseptic is available I always use it. The late Lawson Tait regularly performed laparotomies, with no preparation of the hands other than what he could make with soap and hot water. Bichloride is my preference as being the most reliable. If it disagrees with the hands, lysol, carbolic acid or alcohol may be used.

Most practitioners use a lubricant for the examining finger, but it is better to use none rather than one of doubtful safety. The ones most commonly used are sweet oil, lard, vaseline, and soap. These are all of more or less doubtful safety unless sterilized on the spot. A cake of soap fresh from the wrapper, if its outside layer be washed off is probably safe, but one in use on the washstand is not. I once saw an obstetrician give his hands a prolonged scrubbing, using brush, knife and nail-file, then soak them in bichloride followed by alcohol, then lubricate his finger with vaseline from a jar that had stood in the bathroom for months, with the whole family dipping into it for everything, from herpes to piles, and then proceed to make his examination! I exclaimed mentally, "Oh, Antisepsis, what things are done in thy name!"

Learn to Use Both Hands

It is a good thing for the obstetrician to cultivate the use of the left hand as well as the right in making examinations. It does not take long to overcome the first feeling of awkwardness and unfamiliarity, and it is a great advantage to be able to use either hand indiscriminately. Sometimes the position of the bed makes the use of the left hand necessary, or the index finger of the right hand may be suffering from an abrasion.

How to Make the Preliminary Examination

The patient, while the doctor has been preparing his hands, should have had the external genitals bathed with soap and water. If the pubic hair is long it may be clipped with scissors. Shaving the parts is the custom in hospitals, but is not done to any great extent in private practice.

The patient should lie lengthwise of the bed on her back with her knees drawn up and separated, and covered with a sheet.

The doctor should sit on a chair with his side to the bed facing the head. Folding the index-finger into the hand and protecting it from contact with the bedclothes by the thumb, he passes his hand either under the thigh or between the knees. (I prefer the former.) He approaches the vulva with the *side* of the finger (not the *tip*) thus locating the introitus promptly by the sense of touch without any disagreeable fumbling about. Consideration for the patient's feelings always pays. It is preferable to use one finger instead of two, especially in a primipara.

Occasionally the os is so high up and back in the hollow of the sacrum that the finger is too short to reach it. A very simple device overcomes the difficulty. Ask the patient to turn slightly upon her side (either way). This makes it possible for the examining hand to push the elastic perineum backward toward the coccyx, and thus permits the finger to reach an inch or so higher in the hollow of the sacrum. This cannot be done so well when she is lying on her back because the mattress is in the way of the hand.

The Objects of Making the Examination

It is well to have in mind a systematic plan of the information sought in this examination. If this is not done important points may be overlooked, to the doctor's subsequent chagrin. The first examination should reveal the following data, naming them approximately in the order of their importance:

1. Has labor begun?
2. In what stage is it?
3. Are the membranes ruptured?
4. Are the membranes acting *effectively* as a dilator? (This subject will be discussed later.)
5. Condition of os as to (a) dilation, (b) consistency, (whether soft and elastic, or hard and rigid).
6. The presentation (whether vertex, forehead, face, breech, knee, footling or transverse.)
7. The position. Every presentation has four possible positions; thus the vertex presentation may have the occiput on the

mother's left front, right front, right posterior, or left posterior. For the sake of brevity these are spoken of as "L. O. A.," "R. O. A.," "R. O. P.," and "L. O. P." In face presentations the chin takes the place of the occiput in locating and naming the four positions.

*Easy to Determine Presentation; the Position
More Difficult*

It is usually rather easy to make out the presentation. When experience has given to the finger that refinement of touch known as the "*tactus eruditus*" it is not hard to distinguish between a skull and a breech, a face and a foot. But to determine the *position* is often a difficult matter, especially in a vertex presentation. Here we must depend chiefly on the sutures and fontanelles, and in some infants the skull is so smooth as to baffle the most skilled touch.

The young practitioner need not feel humiliated if, at first, he is not able always to make out the position. Of course, I mean in normal cases. Before applying forceps or any other operative procedures it is absolutely necessary to know the position. Neglect of this precaution has cost many lives. If the position cannot be determined in any other way the hand may be introduced into the vagina (under anesthesia) till an ear can be palpated.

Locating the fetal heart-beat with the stethoscope is often an aid in determining the position, especially in L. O. A., which, fortunately, is the position in over 70 per cent of all cases. When the heart-beat is heard in the left hypogastric region about the middle of a line drawn from the center of Poupart's ligament to the navel, the position is L. O. A. If the sounds are heard on the same level but on the median line or a little to the right, the position is R. O. A. For diagnosing the other positions the heart-sounds are not of much value.

Incidentally, the first examination should also reveal palpable deformities of the pelvis, vagina or vulva if such exist. If prolapsus of the umbilical cord exists it should be discovered now. If the bladder or rectum be found full they should receive attention.

At the conclusion of the examination the doctor should always give the patient a reassuring word. To tell her cheerfully that "things are all right, and you are getting along nicely," is a great mental stimulus to her, and is entirely justifiable even though there may be doubts in the doctor's mind. If he is in doubt as to whether things are "all right," now is not the time to alarm and discourage the patient. He should carefully guard his words and especially the expression of his face. Women are shrewd mind-readers.

The reason for this attitude on the doctor's part is manifest. If there is really something wrong, no good and only harm can come from starting a panic. Let the doctor keep cool and cheerfully proceed to make what arrangements are necessary, and when the time comes to act it is soon enough to tell the patient all she needs to know. Many cases that look rather disconcerting will come out all right with a little patience, and then how foolish it will seem to have raised an alarm.

Most patients after the first examination ask anxiously how long the labor will last. Except in the most obvious cases it is better to give a noncommittal answer, such as, "We can tell better after we watch the case for an hour or so. One examination does not tell us very much." For this is true. No matter how much experience an obstetrician has he will often be at sea if he rashly gives a time prognosis. One case will go unexpectedly fast, another will go hours beyond what the indications seem to suggest. There are too many unknown factors in the problem to solve it with any certainty.



THE TREATMENT OF SYNOVITIS

The various forms of inflammation of synovial membranes, with a discussion of their causes, pathology, systomatology and the methods of treatment found most useful

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INFLAMMATION of a synovial membrane is quite common by reason of infection through trauma, gonorrhea, etc. Various pathological conditions are generally grouped under this head, as syphilitic, tuberculous, etc., but these are not true synovitis but specific infections characteristic of each cause and partaking but little of the general pathology found in true synovitis—for the word should be limited to infection by pyogenic microorganisms.

The trouble has been that the older pathologists have seen a tuberculous infection of the synovial membrane (known to be such) become secondarily involved in a true pus-producing inflammation and have not recognized the trouble as one of mixed infection. Various other forms described in textbooks are likewise dependent upon invasion of the joint by pus-producing bacteria, as "metritic" (staphylococcic, streptococcic, etc.), occurring after child-birth; "scarlatinal" (streptococcic) associated with scarlet-fever; "exanthematous," etc.

Various forms of bacteria may, under peculiar circumstances, become pus-producing and give rise to a serious synovitis, as the bacillus typhosus, Pfeiffer bacillus (influenza), pneumococcus and typically gonococcus.

Staphylococcal.—Infection by staphylococcus (acute inflammation of the synovial sac following an ordinary punctured wound) is somewhat serious if the joint be a large one like to knee or elbow. Immediate free incision is advisable, followed by irrigation with large quantities of normal salt solution; and the establishment of perfect drainage. All this must be done under the strictest antiseptic precautions, in spite of the fact that inflammation is already present, to prevent engrafting a streptococcus infection

upon the less virulent type already present. Drainage may usually be discontinued about the third to sixth day unless fever and great swelling continue. In case there is extensive amount of injury to the joint it is well at time of first treatment to fill the joint with phenol-camphor solution, composed as follows:

Phenol (carbolic acid) pure 2 parts
Camphor 2 parts
Albolene, sterilized 1 part

Streptococcal.—Infection of a joint with the streptococcus (the germ of erysipelas) is one of the most serious of conditions. The most energetic antiseptic treatment must be employed as soon as the symptoms (and microscopic examination of the discharges) show the presence of this type of inflammation. Multiple incisions, with through-and-through drainage by means of gauze strips, injection of iodoform emulsion, free use of the phenol-camphor solution, and systemic treatment to sustain the powers of nature must be attended to promptly. In many cases amputation well above the infected areas offers the only hope of life, when a large joint is implicated; and when indicated there must be no delay. Injection of Marmorek's antistreptococcus serum has not given much satisfaction in these cases.

Gonococcal.—When the gonococcus infects the synovial membrane (by blood transmission or otherwise) it produces an acute inflammation which erroneously has been called "gonorrheal rheumatism." This trouble has nothing whatever to do with rheumatism, but is a true inflammation due to the action of a specific microorganism. It may be treated the same as any other acute synovitis until it is seen that nature cannot care for the trouble: the recuperative power of the synovial membrane being

overwhelmed, and pus accumulates. Then the joint must be opened promptly and drained under strictest antiseptic precautions so as not to engraft a staphylococcus or streptococcus infection upon the membrane. If the patient be seen while the gonococcal inflammation of the synovial membrane is at its earliest stage injection of antigonococcal serum may prove abortive.

Other Forms.—Synovitis dependent upon milder infections, such as typhoid germs, the bacillus of influenza, the coccus of pneumonia, etc., (and sometimes even the

gonococcus), so long as the local focus remains free from true pyogenic poisons, may be treated by less energetic measures: rest, cooling applications like lead and opium wash, ice-hags, cataplasma kaolini, or alcoholic lotions such as tincture of arnica, tincture of camphor, etc. The essential element is enforced rest; and later massage. Internally acetanilid may be given to control pain, aconitine to reduce fever (if much), codeine to induce sleep if pain is great or chloral and bromide if there is not much suffering. Phenol salicylate (salol) acts well in many cases.

SCARLET FEVER AND HOW I TREAT IT

A brief description of this disease, its characteristic symptoms and most common complications, with an outline of the methods of treatment which the author has found most satisfactory

By V. E. LAWRENCE, M. D., Ottawa, Kansas

THE authentic history of scarlet-fever, the most fatal of all the exanthematous diseases known, does not antedate the middle of the seventeenth century, although Seneca, who lived in the first century, described a disease which Morris (see his essay on scarlet-fever) believes refers to this disease. Sydenham witnessed and studied epidemics in the seventeenth century, and it was during this century that measles and scarlet-fever were differentiated. During the past three hundred years it has claimed the attention of the doctor, the pathologist and the microscopist, until now, Dr. J. Lewis Smith says, "Our knowledge of scarlet-fever has become full and accurate."

History and Theories

This disease first appeared in North America, in 1735, having been transmitted, as were many of the contagious diseases, from Europe by ships. It did not reach South America until 1829, and Iceland was not infected until 1847. The disease is now spread over the entire globe.

It is interesting to note the modification of opinions regarding its etiology. Eberlie, in his little volume on diseases of children (published in 1845), quotes Gregory as saying, "There is abundant evidence that fever attended with scarlet eruption and possessing all the other characters of this disease does occasionally arise from exposure to cold." This statement, however, was made long before the microscope had opened the then undiscovered territory of the microbe. Pepper's "Practice" states that "the evidence is strong that scarlet-fever does not originate *de novo*, that it does not spring from a certain atmospheric or telluric condition, but is produced by a definite specific principle."

The essential microbe has now been isolated. Eklund says that the germs of the disease are scarcely ever absent from Stockholm, and that it is not uncommon for an epidemic of the disease to be started by digging up the earth in the neighborhood of the city sewers or by children swimming in pools about the city and later allowing their clothing to dry in the house. The

germs are easily conveyed from place to place.

After considerable perseverance and loss of time I once discovered the origin of a case in a child who had been allowed to play with a letter which had long been in the house. The letter stated that there was a mild case of scarlet-fever in the house when the letter was written. Again, I know of an instance where the little son of a wealthy family in New York died with scarlet-fever. His handsome wardrobe was put in the garret where it remained for fifteen years and was then thoughtlessly sent to a family in Iowa, where the children in the house became infected and three died. Another example of the tenacity of the germ is cited where the grave of a child who had died from scarlet-fever many years before was opened and which was the cause of a severe epidemic. Smith cites several cases where milk which had come from houses where the disease was active was doubtless the vehicle in which the germs were conveyed to more than a dozen families who used the milk.

Some of the early investigators claimed that the microbe found was not the cause but the result of the disease. In the case of diphtheria and anthrax, inoculation of the virus from these diseases reproduces the same malady in the lower animals, but only the human subject is susceptible to infection with scarlet-fever; hence it is not so easy to prove or disprove this assertion, but the fallacy of it is now generally acceded.

There can be little doubt that the germ enters the system, as a rule, through the lungs, but it may be conveyed by means of food and drink. The physician himself may easily convey the contagion from place to place in his clothing.

My experience in disinfection of the house after the disease, with a view to preventing further spread of the disease, has not been satisfactory. Prior to the use of formaldehyde I used the then best-known disinfectants, and later the fumes of formaldehyde, and still other children who were exposed contracted the disease.

The stage of incubation varies from six hours to six days. Russeberg attended "a child first exposed at noon and took the disease the following night." Usually, however, the incubative stage is about six days. The area of the contagiousness is small, apparently embracing only a few feet, and the same may be said of diphtheria.

Some children seem to be immune. One author states that children over seventeen years of age seldom contract the disease. In this it differs from measles, and it is a good reason why children should be protected against exposure.

Like all contagious diseases, it is more prevalent in cold climates and during the cold months. This is doubtless due to the fact that the people, under such climatic conditions, are more closely housed.

Robinson says, "No contagious disease varies so widely in the severity of the various epidemics as scarlet-fever." Willan says they differ as much as a "fleabite and a plague." A good practitioner of my acquaintance lost seventeen patients in one week's time. Some families have the disease so mildly as scarcely to know that they are sick at all. The mortality is at the maximum at three years of age. During the first years of life the liability to contagion is slight. It increases up to the third year and thereafter diminishes. Hence the longer an attack is delayed the less dangerous it is.

Several cases of congenital scarlatina have been reported. It was once my lot to witness such a case of congenital measles. Both mother and child did well. The eruption on the infant was quite marked.

Scarlet-fever, like all the exanthemata, is highly protective, perhaps more so than any of the others. Measles is not so highly protective. I have seen, I should say, not less than twenty-five cases in which measles were contracted twice. History mentions the name of one of the French kings who died with the third attack of smallpox.

Associated Infections

It should not be forgotten by the physician that the contagion of scarlet-fever readily produces septicemia in the parturient woman

and that the obstetrician may be responsible for conveying the infection to his patient and thus give rise to a condition which may prove fatal. The greatest care should be exercised during such epidemics. Domestic animals, such as cats and dogs, frequently convey the disease from the sick-room to healthy children. This is also true in diphtheria. Books in circulating libraries, second-hand furniture, etc., also carry the germs into new locations.

Good authorities state that more than one of the exanths may occur at the same time in the same patient. Diphtheria and scarlet-fever have been diagnosed as present at the same time. Such complications make both the treatment and the diagnosis difficult and uncertain.

Pharyngitis may result from exposure to scarlet-fever even in adults and in those who already have had the disease. The disorder is to be distinguished from scarlet-fever by being of shorter duration. A case is cited in which a doctor developed this inflammation of the throat every time he treated a case of scarlet-fever. The poison will also sometimes set up a nephritis, even where it does not develop the disease itself. False membrane is seen in severe cases, and may extend to the nostrils. This is caused by necrosis of the epithelium. The disease usually commences quite abruptly, and, if it promises to be severe, with a chill. The suddenness and severity of the attack is one of the diagnostic points.

Some of the Symptoms

Vomiting is an early symptom, and in severe cases the vomiting is frequently repeated. This is supposed to be an evidence of cerebral interference. Mental dulness is another symptom of the same complication. The bowels are usually not abnormal in functional activity.

The fauces are early involved. There is redness and swelling. Not only the tonsils are involved but the buccal tissues generally as well. In tonsillitis only the tonsils are attacked. There is usually a viscid secretion. The tongue is slightly coated and through the coating the en-

larged papillæ protrude. This symptom is always present but is not pathognomonic, as it is found in other conditions.

The skin is hot and dry, and within twelve hours the eruption appears. Of all the eruptive diseases the discoloration of the skin appears earliest in scarlet-fever, and this fact is an important point in diagnosis.

The eruption first appears upon the neck, face and shoulders and rapidly spreads over the trunk and limbs. It may first appear in small patches, but these soon join to cover the entire surface and the skin resembles a surface painted with scarlet paint. The skin, however, is not entirely smooth. The eruption is composed of numerous points, which appear to correspond to the hair follicles and the summit of these points are of a somewhat deeper scarlet than the surface between them. Close attention is necessary to detect this symptom. The rash disappears upon pressure but returns immediately upon removal of the finger. Failure to do so indicates weak circulation and is indicative of danger. In such cases the color is of a dark hue. The eruption is often more prominent in the dependent parts, as on the back and shoulders; the blood seeking the lowest level is the cause of this, and it is another evidence of a weak heart. The eruption often is accompanied with a good deal of burning and itching. The skin may be tense and swollen. The eruption begins to fade first at the location where it first appeared. Usually it will have disappeared about three days after it begins to decline. The duration of the eruption is from three to seven days. The disappearance of the rash is generally the beginning of recovery.

Desquamation follows immediately upon the disappearance of the rash. The desquamation usually occurs in flakes. The writer, however, once saw the epithelium covering the chest entire.

The pulse is very rapid, sometimes reaching 200 beats a minute. The temperature is also often dangerously high. I once saw a case in which it reached 107° F., in the axilla at the first visit, and the pulse was as near 200 as I was able to count.

The old authors were accustomed to sub-head the disease as to its severity into scarlatina simplex, scarlatina anginosa and scarlatina maligna. I will not dwell upon this classification as it is well known to all the profession.

The simple forms need but little treatment, while the most malignant cases are almost beyond the most skilful and energetic efforts of the doctor. Our attention is directed to the cases of medium severity, and these often tax our skill and experience to the utmost and fatal cases of this form are not very unusual.

Probably the most dangerous symptoms are to be found in the throat, in the circulation, and in the kidneys. But the temperature itself may involve the safety of the patient.

The throat often becomes enormously inflamed and swollen. Another source of danger is from the toxic effects of the disease upon the brain, and patients so affected will lie in a dull and semicomatose condition, apparently oblivious of their extreme danger.

Complications and Sequela

There is no other eruptive disease attended with so many sequelae. Abscess of the salivary glands, acute Bright's disease and diseases of the ear are the most common, although there are many others which sometimes destroy the usefulness of the patient for life. The ears are attacked through the eustachian tubes. In fatal cases necropsy has shown fatty degeneration of the heart. There may also be edema of the lungs. In fact any of the serous or mucous surfaces may become involved.

It is necessary that the physicians should bear in mind the kidneys from the very beginning as they may at any time fail to secrete. And this failure means rapid death to the patient unless these organs be induced to take up again their function or the skin and bowels be called upon to carry on their work.

Peritonitis, conjunctivitis and periostitis are also complications or sequelae. Gee says that "the quantity of water is diminished and the urea is not necessarily in-

creased" during the fever. In one case he made a daily examination of the amount of uric acid and found it much diminished on the second and third days, normal on the fourth and much increased on the fifth. Bile may be found in the urine.

The duration of the disease is from three to twelve or fourteen days. From the commencement to the end of the fever the average duration in 40 cases was six and one-sixth days.

Desquamation begins about the sixth day and may continue for three or four weeks. The amount of desquamation depends upon the severity of the efflorescence.

The complications attending scarlet-fever are so many that to name them would require too much time and space. Frequently these are more fatal than the disease itself. The care of such cases requires constant vigilance on the part of the physician.

Diagnosis, Prognosis and Prophylaxis

The diagnosis of this disease is usually not difficult, but as in the case of all eruptive diseases, a good many mistakes are made. The diagnostic points between scarlet-fever, measles, roseola and smallpox must be kept clearly in mind. Probably doctors make more mistakes in the diagnosis of this class of diseases than in any other. Doubtless all of us are aware of their symptoms and I will not enumerate them.

The prognosis depends upon the general health of the patient, the severity of the attack, the complications arising and the care of the patient by doctor and nurse. Not a few cases become fatal because of carelessness on the part of parents or nurse, allowing the patient to be exposed to cold either during the attack or even for months after, thus exciting an attack of acute nephritis.

As to the Treatment

Pepper's "Practice" devotes twenty pages to the treatment. Loomis-Thompson gives fourteen pages. Any disease followed with a high mortality always has a voluminous range in the treatment, and scarlet-fever is not an exception.

As to prophylaxis, there is none. Our homeopathic friends have used belladonna, but so far as I know without establishing a reputation for its value in this connection.

Physicians should not forget the usefulness of antiseptic ointments applied to the skin. They destroy bacteria, allay the usually prominent irritation and prevent the exfoliated cuticle, laden with infection, from carrying the contagion abroad. The ointment should be washed off frequently and new applications made. Carbolic-acid ointments had better not be used owing to the danger of its absorption and damage to the kidneys. Boric acid or an antiseptic like listerine may be incorporated into vaseline.

The use of antiseptics seems rational, but it is somewhat doubtful whether, when used within the limits of safety, they are effective. Listerine has been administered and used by good authority as a gargle with apparent success. The boric acid which it contains is probably the source of its usefulness. Sodium salicylate also is useful.

Unless a weak pulse contraindicates aconitine, veratrine and digitalin should be employed with a view of inviting the blood to the capillaries of the skin and thus not only hastening the appearance of the rash but at the same time lowering the temperature by evaporation. They should, however, not be continued longer than the tone of the heart would indicate.

Of late calcium sulphide has come into use in this as well as in all other eruptive disorders. I was called to see a child about one year old which had contracted the disease from a brother. At the first visit the temperature in the arm-pit registered 107° F.; pulse 200, as near as could be counted. Thinking the case beyond the usual treatment I decided to rely upon calcium sulphide alone, and ordered one grain every one-half to one hour. The patient was convalescent thirty-six hours after, and I made only three visits in all upon the patient. I have used the same remedy since, but without as marked results. However, I consider calcium sulphide useful and prescribe it in all cases.

The pulse should be sustained with strychnine, etc. The kidneys should have the benefit of some soothing diuretic. The throat should frequently be well disinfected, and the bowels kept open with laxatives, but only mild ones.

The value of cold water in reducing the temperature is an unsettled question. A patient living in our neighborhood was ordered into a cold bath by the doctor—he died almost immediately. While I have not tried it, it would seem that irrigation of the colon with cold water would be a safe means of reducing the fever. The danger from cold applications is probably due to internal congestion caused by the blood being driven rapidly from the skin.

The patient should be cleansed frequently with wet towels and the skin anointed with oil or vaseline. Good ventilation should not be neglected. Light food and plenty of water are needed. Symptoms should be met as they arrive. It is often that the throat and nose require special attention in the way of cleansing with the atomizer or with a gargle. The bed should be a good one and the clothing and bedding changed frequently. All discharges from the patient should be disposed of so as not to expose others to the contagion.

The disease is self-limited. The object of the treatment is to enable the patient to endure the attack as well and as comfortably as possible until it is past.

The treatment best for each case will depend upon the severity of the disease and the skill of the physician. No plan can be given which is applicable to all cases. In case the kidneys become so involved as to result in uremic poison, active and prompt measures must be resorted to to remove the urea, otherwise death will soon follow. The patient should be put into a hot-pack with hot-water-bottles placed about him, jaborandi being administered to call the skin into activity. Elaterium should be given to produce watery evacuations, and gentle and soothing diuretics to stimulate the kidneys. Benzoic acid will combine with the urea to form an insoluble urate and thus render this toxic element inert.

THREE CASES OF CESAREAN SECTION

A comparison of the advantages of this operation with those of symphysiotomy, and a report of the author's individual experience, which leads him to prefer the abdominal section

By J. M. TRIGG, M. D., Shawnee, Oklahoma
Surgeon to the Shawnee Hospital

THE subject of this paper is not a new one. Cesarean section is one of the oldest operations in surgery, and it used to be considered next thing to murder to do one, but at the present time it is not considered such a dangerous or difficult operation.

The choice between difficult high forceps or version, on the one hand, and the cesarean section on the other, may confront a physician at any time; and leading obstetricians take the position that cesarean section as an operation of choice is preferable to a difficult high forceps or version.

Yet, there is another side to it—the mortality of the mother. The mortality of the mother is not great in high forceps or version, while cesarean section is credited with a mortality of from 4 to 6 percent. These figures are, of course, more apparent than real, and rest, in fact, on a failure to state in words the great difference in the mortalities of a cesarean section under differing circumstances. (a) Cesarean section, after the expulsive efforts have failed to drive the head through the brim, has a mortality of 12 percent. (b) Cesarean section, after a moderately full test in labor, but before the advent of signs of exhaustion, has a mortality of 4 percent. (c) Cesarean section before labor has a mortality of 1 percent. (d) The mortality of cesarean section in general is proportionate to the amount of labor that has been endured before its performance.

Importance of Early Decision

It is apparent then that the necessity for cesarean section must be recognized before the onset of labor, or at best soon afterward,

*Read before the Pottawatomie County (Okla.) Medical Society, Feb. 10, 1908.

in order to give the patient the benefit of an early operation. The operators who have most operations to their credit also have the largest percentage of primary operations, so that we have the best chance of saving both mother and child by an early operation. The patient should not be exposed to real danger by a partial test in labor, as little can be judged by the first pains in labor and each successive hour subjects her to greater danger in the subsequent cesarean section.

Indications for the section from mechanical obstructions alone still remain doubtful as the patient approaches the end of pregnancy. We must consider multiparæ and primiparæ separately. In multiparæ the choice usually is clear. Most obstetricians agree that really difficult high forceps or version are more severe operations than the primary cesarean sections, and, as a general rule, that when in previous labors intrapelvic operations performed by competent men for mechanical obstacles have resulted in still-births or extensive damage to the mother, the primary section may be considered indicated without further question; but the important point is, that in multiparæ, with mechanical obstacles, it is not the number of inches in the conjugate but the history of previous labors that should be our guide in determining the indications. Yet, common sense should never be forgotten in our practice.

Obstruction in Healthy Primipara

In primiparæ obstruction it is a safe rule that strong young women in whom the degree of mechanical obstruction is doubtful may safely be left to the full test of natural labor, in the hope that the head may be

driven past the brim; and with the abiding faith that if this fails this class of women will endure their intrapelvic operations well and safely, some babies may be lost but the women will survive and resist death. In subsequent pregnancies the choice should be for cesarean section. Elderly primiparæ do not stand intrapelvic operations well, as one can not estimate the amount of damage to soft parts and the number of still-births.

Labor is naturally a muscular function, and its effectual performance is dependent on the possession of muscular power and a capacity for enduring pain without undue exhaustion. In order to have this combination, we must have good eliminative organs and a strong heart-muscle. One should advise moderate exercise and look after the excretory organs, and then the woman will have a chance to use all the force within her. If she fails, she is in good condition to stand either vaginal cesarean section, symphysiotomy or cesarean section proper.

Indications for cesarean section. Operation is indicated in the following conditions: uterine fibroid, osteomalacia, epithelioma of cervix, placenta prævia, eclampsia, pulmonary tuberculosis, contracted pelvis, rachitic pelvis, hydatid cyst, dystocia from ventral fixation, if the anterior lip of the cervix is thickened, or the os uteri is pointing to the promontory of the sacrum and labor is not progressing effectively, and in case of twins where the heads become locked during attempted delivery.

First: Vaginal cesarean section has been highly praised by those who fear to do a

true cesarean section. It is a difficult and a dangerous operation. It is done as follows:

After the vagina has been carefully scrubbed with soap and bichloride of mercury (1 in 2000), a retractor is introduced (with patient in lithotomy position) and the perineum pulled strongly forward. The anterior lip of the cervix is seized with two pairs of volsellum forceps, one on each side of the median line. The cervicovaginal junction of the mucous membrane is incised, as in vaginal hysterectomy. The

bladder is separated from the anterior surface of the uterus by the fingers as far as the reflection of the peritoneum. This is opened and a long, narrow retractor is inserted, lifting up the bladder. The uterus being pulled downward as far as possible, an incision extending through the cervix and anterior segment of the uterus, about four and one-half inches long, is made with a pair of straight scissors. Obstetric forceps are applied through the opening and the child is delivered. The placenta is expressed by Credé's



DR. J. M. TRIGG

method. The incision in the uterus is to be closed with interrupted sutures of chromicized catgut No. 3, and the mucous membrane with plain catgut. The vaginal portion of the cervix is not usually sutured, but stuffed with gauze in order to permit free drainage. If the child is large, a posterior median incision should be made. The bleeding from the incision is not alarming, as the traction on the divided ends of the cervix prevents this.

Second: Symphysiotomy, or pubiotomy, is at present attracting much attention as a

substitute for delivery by abdominal section. It is claimed for this operation that the pelvis is quickly opened, with a small and insignificant wound, the gain in pelvic diameter being permanent. To this extent the claims cannot be denied; but this operation does not deliver the child, there must follow delivery through the pelvis and vagina, with the risk of unfavorable mechanism, and with greater than ordinary danger of laceration and hemorrhage for the mother, and the number of still-births is very large; we cannot, as surgeons, afford to take the risk.

Third: Cesarean section, in my judgment, is the operation of choice in obstetric surgery for delivery of the child in debilitated and the obstetrically ill-equipped class of women, and more particularly where there is a contracted pelvis. The operation is no more difficult than other abdominal surgery.

Procedure in Cesarean Section

Prepare your patient as in other operations, and be especially careful to give the vagina a thorough cleansing, as there generally is the source of any infection. The equipment needed will not be extensive, being a knife, artery-forceps, scissors, retractors, needles, needle-holder, and plenty of catgut ligatures (numbers 2 and 4; and I prefer 10-day chromicized). In addition there should be to hand plenty of sterilized gauze, sponges, pads and towels.

The operation is done about as follows:

Make an incision from the pubes to the left of the umbilicus and as far beyond as is necessary to deliver the gravid uterus outside the abdominal cavity; pass the hand down beside and around to fundus, and elevate it and press it downward and forward at the same time, when you can deliver it through a much smaller opening than if you lift it straight up. The assistant will receive the uterus in a hot saline towel. Wrap it thoroughly in hot saline towels and hold it up and well forward, and then lay three or four hot towels over the abdomen, then pack around the anterior portion and sides of the wound so tightly that none of the uterine contents can soil the peritoneum.

Lay the uterus down, and make the incision as near the median line on the anterior surface as possible, in this way avoiding the arteries and veins, more in this region than elsewhere in the uterus. Make an opening about eight inches in length, doing it all at one stroke of the knife, then pass the hand into the uterus and deliver the head first, and as rapidly as possible. Do not stop for hemorrhage but direct the assistants to grasp the edge of the wound with hot saline towels, and grasp it firmly while you deliver the child, tie off the cord as in other labors, then go in and detach the placenta and remove it *en masse*. During this time the assistant is to hold the uterus firmly between his two hands, exerting sufficient pressure to cause the uterus to contract and stop the bleeding. Next put a good-sized piece of iodoform gauze into the os uteri, and have your assistant insert a pair of dressing forceps up into the uterus from the vagina and draw the end of the gauze down into the vagina, to give good drainage.

The closing of the uterus, now in order is very simple: Put in two rows of sutures if the walls of the uterus are very thick, using Nos. 2 and 4 iodine 20-day Bartlett's catgut sutures. First place your No. 4-catgut interrupted suture as follows: Start your needle back about one-half inch from the edge and come out just above the mucous lining of the uterus, and then go across to the other side and start in just above the mucous coat and out about one-half inch from the edge of the wound. Put your sutures about one inch apart; then, before tying your interrupted sutures, take a No. 2 catgut and make a buried uninterrupted suture, drawing the walls of the uterus together firmly; then tie your interrupted sutures and leave the ends long so that the contractions of the uterine walls will not untie the sutures; then make a row of Lembert's sutures to be sure all raw surfaces are covered; then remove your towels and packing and drop the uterus back into the abdominal cavity, completing the operation precisely as in other abdominal operations.

Case 1. Mrs. M. J. F., primipara, aged 28 years, was admitted to the Shawnee Hospital 8:30 a. m., July 4, 1907. Husband and wife had been informed some two months previous to admission by the family physician of the necessity of surgical interference at time of delivery. The patient was emaciated, very poorly developed, and with a poorly developed birth-canal. The lower limbs were deformed and emaciated. The pregnancy was at about the seventh month, placenta and sac removed intact without rupture. The pelvis was considerably contracted in all diameters. Both husband and wife requested that, if possible, further pregnancy be prevented; and as it was very evident that she could not give birth, I removed, at the time of the operation, both her ovaries. There being considerable shock from loss of blood during the operation, I gave a hypodermic of adrenalin chloride, grt. 5, ergotole, grt. 15. (The pulse went to 160 during operation.) July 6 temperature was 99.8° to 100.6° F.; pulse 112 to 124; respiration 23 to 28; voided urine; good bowel movements. The drainage was removed from the uterus and began with the bichloride douche, 1:2000 thrice daily. Temperature went to normal, patient continued doing well, and left feeling fine on the twenty-first day.

Case No. 2. Mrs. R. V. V. (Dr. J. A. Walker's case, in which I assisted), age 34, multipara, fifth child. Had had two forceps deliveries, and postpartum hemorrhage once. In the last three pregnancies she was very much emaciated. This case was a breech presentation; heavy child; pelvis contracted; patient in a debilitated condition; confinement-pains about normal, but making no progress; had been in labor eighteen hours. There had been but two or three vaginal examinations prior to seeing her, then made one under chloroform; os dilated normal. The disparity between the size of the presenting part and size of pelvis was the cause for deciding to do a cesarean section. The woman was removed to the hospital August 26, 1907, admitted 10:30 a. m., and prepared for operation, all completed, at 12 o'clock noon. September 1, temperature

99.8° to 100.6° F., pulse 86 to 100, respiration 20 to 24; perspiring freely and feeling chilly. At 10:00 p. m. I administered antistreptolytic serum, 10 Cc. Temperature dropped to normal. September 2, temperature 98° to 99.2° F., pulse 72 to 84, respiration 18 to 24. September 3, temperature 98° to 100.6° F., pulse 72 to 100, respiration



Dr. Trigg's Case

18 to 24. I administered antistreptolytic serum, 10 Cc., and the temperature dropped to normal and continued normal throughout convalescence. She left the hospital in fourteen days.

Case 3. Mrs. E. B., age 25. Had had two previous normal labors. Had been in labor for twelve hours. This was a very small woman, 4 feet 5 inches tall, weight 65 pounds. I found right anterior brow presentation; head was impacted in pelvis when I saw her. I tried to produce version but failed, so tried to deliver with forceps but could not, so I removed her to the Shawnee Hospital and prepared her for operation. I performed a symphysiotomy

and gained about three-fourths inch in diameter and then delivered with forceps. It was a very hard delivery, but the patient recovered with perfect results. However, I believe she would not have had so much

shock from a cesarean section as she suffered from the symphysiotomy.

In conclusion I will say that the earlier in confinement the cesarean section is done, the better the chances for recovery.

SURGICAL AND GYNECOLOGICAL NOTES

BY EMORY LANPHEAR, M. D., LL. D.

EPISTAXIS

Before resorting to a plugging of the nares to check nosebleed it is best to apply a small ball of cotton saturated with peroxide of hydrogen, or with a 10-percent solution of antipyrin. If at hand, a solution of adrenalin chloride may be likewise tried, generally with success.

TREATMENT OF TRACHOMA

While the essential treatment of trachoma consists in extraction of all of the granules with Prince's forceps or otherwise, there is much else to be done to effect a cure. For the second stage the application of a weak solution of nitrate of silver does better, perhaps, than anything else, especially when the patient complains of pain, burning and itching. Use two grains to the ounce of distilled water. The conjunctival sac is first to be irrigated with bichloride of mercury solution, 1 in 1000, or formalin of the same strength, for two or three minutes; then the silver solution is dropped in, the patient lying upon his back and remaining so for several minutes. This procedure is to be repeated four times daily until a cure is effected. In a few cases cauterizing with sulphate of copper will be necessary in the late stages, if granulation is excessive.

NERVOUS DISTURBANCE IN PROSTATIC DISEASE

In a paper read before the Tri-State Medical Society of Iowa, Illinois and Missouri, Dr. J. L. Boehm, Professor of Genito-

urinary Surgery in the St. Louis College of Physicians and Surgeons, gave it as his opinion: (1) The prostate and its appendages when diseased have a special influence on the nervous system in close similarity to the nervous sequelæ of the diseased female pelvis. (2) The prostate and seminal vesicles are to the neurotic male what the uterus and tubes are to the female, and must always be carefully examined in neuroses. (3) Apparently simple disturbances of the prostate may cause serious reflex neurotic conditions, because of the complexity of the nervous mechanism surrounding and supplying it. (4) The question of an internal physiologic secretion, and the possibility of the lecithin and organic constituents of prostatic secretion serving as a nutritive factor to nerve metabolism, has not yet been scientifically demonstrated. (5) Spinal anesthesia and cerebral exhaustion are commonly and often ascribed to overwork at the office or in literary pursuits, but not always recognizable as dependent on a diseased prostate. (6) In cases of sexual crimes and criminal perversion, an intrapelvic and extrapelvic examination of the genitalia of the accused should be made by expert urologists, at the same time that the neurologists examine the mentality of the accused. (7) Jurists should recognize the mental condition of the fiend or pervert who commits sexual crimes as not always due to a hereditary taint, but probably as commonly the result of some previous urethral disease, uncured at the time. From this chronic diseased condition sexual mania results. (8) There is a medical aspect to the recent lynchings and riots, because the fiends re-

sponsible for them are diseased and are not human monstrosities. Temporary sexual insanity is a reality as much as is deranged mentality caused by typhoid fever or some condition of hyperpyrexia.

WOUNDS OF THE SKULL

Every suspicious wound of the scalp should be thoroughly explored to see that there is no fracture beneath; in case of doubt the wound should be enlarged for perfect inspection. The following rules laid down by Adams are to be carefully observed:

Gutter fractures should be invariably operated upon as early as possible to get rid of bone fragments, clots and debris, and to provide outlet for the products of infection which are common to these cases. Without early operation these wounds suppurate, and the operation is too late. (Von Manteuffel).

In transverse perforating wounds cleanse orifices and await symptoms.

In superficial penetrating wounds with lodgment, exploration with removal of bone fragments and bullet should be made if practicable.

In transverse penetrating wounds cleanse the orifice of entrance, await symptoms, and employ radiography.

Cases of compression by blood-extravasation, with localizing symptoms, are rarely seen. When extravasation can be localized and is accessible, it should be treated on general surgical principles.

In some cases of penetration there may be fracture of the skull opposite the point of entrance, without exit opening.

Such a condition requires exposure and removal of the bone fragments; the bullet in such cases is rarely found near the second fracture, generally having been diverted to some other region by ricochet on the skull wall.

The question of removal of a bullet lodged in the cranium is one of special interest, inasmuch as a widespread belief prevails that a lodged bullet is *per se* a most dangerous thing. The danger lies in the damage

done to the brain by the passage of the bullet through its substance, and, unless symptoms arise which can be traced to persistent irritation by the presence of the bullet, or radiography demonstrates that the bullet is in such position as to produce irritation sooner or later, no attempt should be made to remove a deeply seated bullet from the cranial cavity. Whenever we are confronted by the question of removal of a deeply lodged bullet, it should be definitely ascertained that the symptoms present are due to irritation from the presence of the bullet itself, and not to its having inflicted damage on certain regions of the brain on its way to its present location, for the removal of the bullet could in no way affect the injured cerebral tissue.

TUBERCULOSIS OF THE URETHRA

In most cases this condition is secondary to involvement of the bladder or the spermatic tract, but rarely a primary tuberculous infection of the urethra may occur, generally through the blood. It is more often seen in men than women. Gonorrheal infection generally precedes it. When it attacks the posterior urethra the endoscope shows a mass of gray granulations, most often on the sides of the veru montanum and orifices of the prostatic ducts. Sometimes there is great destruction of tissue. Occasionally spontaneous cure occurs by cicatrization of the ulcers. Chief complaint is made of urethral pain, tenesmus, frequent urination and passage of pus or shreds in the urine, and even a few drops of blood may be noted.

Bacterial examination shows tubercle bacilli instead of gonococci. The best treatment consists of perineal incision into the prostatic urethra and through the sphincter vesicæ. Then the ulcerated surfaces may either be cureted and touched with pure phenol or burned with the Paquelin cautery. This is, of course, advisable only in extremely bad cases, attended by violent spasm of the sphincter and much burning on micturition. Milder cases may be treated by application of nitrate of silver through Lallemand's *post-caustique* or by instillation of the same

with an Ultzmann's or Guyon's syringe. This plan is advisable in treatment of tuberculous, granular patches in the anterior urethra, followed by the injection used in chronic gonorrhea; for most of these patients have had gonorrheal infection, and burning sets up a new clap.

TEST FOR MUSCLE BETWEEN FRAGMENTS OF A FRACTURE

Dawborn draws attention to a method of diagnosing the presence of a piece of muscle between the fragments of a fracture. Absence of crepitus can not be meant to prove such a complication, and the presence of grating is no sure proof that the fragments are in apposition without any intermediate soft tissues.

In the case of a fracture of the shaft of the humerus, this can be determined in a few minutes by placing a stethoscope over the greater tuberosity of the bone, while an assistant percusses over the external condyle.

When there is fairly good apposition of the fragments and no torn tissues have slipped between the ends, upon comparing the sounds by this method, first in the normal and then on the broken bone, very little difference is noticeable. In a case where no union or very poor union must result (owing to the interposition of soft tissue) no surgeon with fairly good hearing can fail to recognize a striking discrepancy in both intensity and pitch upon the two sides.

This method is decidedly novel and ought to be of value in fractures of the long bones.

—*The Hospital*.

PHOTOTHERAPY IN LUPUS

Much benefit can be obtained from the use of light in the treatment of lupus. Small, superficial foci are to be subjected to the rays of a quartz lamp; these rays have such a powerfully irritating effect upon the skin that they must be used with great caution, so that preliminary treatment of the lesion and surrounding area with the Roentgen

light (x-ray) is advisable. For the severe, extensive cases the Finsen light has proven very effective and may be tried, if not contraindicated by some organic affection, after x-radiance has failed to cure.

HYPEREMIA FOR KELOID

A late report from Prof. Bier includes the statement that keloid may sometimes be cured by resort to hyperemia (by the Bier method). This is important if true.

THE DECIDUA IN EXTRAUTERINE PREGNANCY

Many patients with extrauterine pregnancy have been cured by presumed abortion, nothing being obtained but fragments of decidua. Some authorities regard the passing of decidual membrane (by curettage or otherwise) as very important in the diagnosis of ectopic gestation. Frequently, however, the passage of the decidua may be unnoticed, or the membrane may remain in utero for a long time, even after operation, so the absence of the decidua or a history of its passing must not be regarded as of great importance as a contraindication for operation in cases otherwise fairly clear in symptoms.

TUBAL PREGNANCY

Pregnancy of the interstitial part of the fallopian tube causes bulging of the cornu of the affected side. Most of the swelling is above the plane of the fundus so that the mass feels like pyosalpinx; but, unlike pyosalpingitis, the opposite tube is not fixed and tender unless rupture and infection of the hematocele has occurred. Pregnancy in the horn of a bicornate uterus is always to be considered as a possibility, in this connection.

UTERINE ARTERIOSCLEROSIS

Sclerotic changes in the arterial supply to the uterus are of more importance than generally taught. This uterine arterio-

sclerosis, too, may be independent of any general degeneration of the arterial system; even sclerosis advanced to atheroma with calcareous deposit in the vessel-walls may be found as early as the period of the menopause.

The trouble may be so serious as to lead to hysterectomy for the control of an otherwise intractable hemorrhage. Removal of the uterus for presumed incipient carcinoma may prove disappointing on microscopic examination and the inexperienced operator may feel that a terrible blunder has been committed; yet section of the uterine tissue

may show advanced arteriosclerosis as the source of the persistent bleeding, thus entirely justifying the radical operation. Further, diagnosis prior to operation is practically impossible.

ANGIOMA OF THE PLACENTA

A few cases of this curious condition have been recorded. As it is essentially benign its chief interest is to the pathologist who must not mistake it for chorioepithelioma (syncytium malignum), which is a most malignant disease.

::: THERAPEUTIC NOTES :::

GLONIN USEFUL IN DYSMENORRHEA

Glonoin is warmly recommended by Hugh M. Moore, of Ohio, in the treatment of dysmenorrhea. He commences the use of this agent during the week preceding the expected menstruation. When the flow begins 1-100 grain of glonoin is administered every three to five hours according to the effect, the blood tension being the guide. During the first few menstrual periods small doses of morphine, gr. 1-8 to gr. 1-5 each, are given to control the pain. This is discontinued as soon as the flow is established and the pain ceases. Glonoin regulates the vascular pressure, quiets the sensory nerves, increases the trophic changes in the muscle-fibers and stimulates glandular activity.

ATROPINE AND VASCULAR PRESSURE

Sollmann says that atropine does not raise vascular pressure, unless it is occasionally and slightly at first, but this is quickly followed by decided relaxation, while "large doses depress the vasomotor center profoundly, so that the pressure falls very low." And yet this was young Wood's objection to atropine as a hemostatic, that it raised

vascular pressure and hence could not act in this manner. This is a fresh instance of the folly of trying to decide such questions by *a priori* reasoning instead of by actual clinical tests.

More yet—and worse—Sollmann says: "Hyoscine (scopolamine and atropine) are related to atropine in their action, but show important practical difference. . . .

They produce mydriasis, stimulate respiration, paralyze the vagal and gland endings, and stimulate the heart-muscle." Oh! Oh!!

Still worse: "Small doses of atropine or of hyoscine are useful as a preliminary to general anesthesia. They are usually combined with morphine. . . . They stimulate the respiratory center, check the excessive formation of mucus, and prevent reflex stoppage of the heart from vagus stimulation." Oh! Oh!! OH!!!

USES FOR CALCIUM SALTS

Arthur P. Luff, in the last *British Medical Journal*, points out that conditions of deficient coagulability of the blood do not always manifest themselves by a tendency to hemorrhage, but also by an increased transudation of blood-plasma through the capillary walls—or "serous hemorrhage."

This condition is often the cause of such conditions as urticaria, chilblains, swelling of the feet and a form of headache known as the "lymphatic type of headache." This is a frontal or temporal headache, experienced on waking in the morning and usually disappearing after a few hours. The subjects of this type of headache are generally anemic, suffer from mental or physical lassitude and are troubled with cold extremities and a tendency to slight edema of the hands or feet.

In a large number of cases of this type Dr. Luff has tried the calcium salts, preferring the lactate, and with quite remarkable results. Of the headaches 82 percent were cured and in only a few cases was there no relief; 78 percent of the chilblains were cured, six out of seven cases of urticaria, etc. The calcium lactate was given in 15-grain doses, dissolved in an ounce of chloroform water with one-half to one minim of tincture of capsicum. This dose was given three times a day, one hour before meals.

FORMOL IN CANCER

An item in the daily press states that Prof. Laurent of Brussels advocates formol in the treatment of cancer. He says: "The technic changes according to nearly every case, still a doctor who has a thorough knowledge of anatomy and of the disease can apply the method easily. The advantages of the use of formol are that its effects are exactly proportionate to the injected dose; they can be mathematically foreseen. In treating cancer with formol, especially in the incipient stage, the cures will be innumerable. Cancer can also be prevented by formol. The systematic disinfection of the stomach or of the throat will certainly do a lot of good in the way of preventing cancerous disease."

STROPHANTHUS IN GOITER

Dr. C. C. Perry of Vermont reports excellent results from the use of tincture of strophanthus in exophthalmic goiter. He

gives the tincture in doses of 12 to 15 drops every one or two hours.

Haynes, of the University of Cambridge, says (in *Folia Therapeutica*) that the galenic preparations of digitalis and strophanthus vary considerably and undergo continuous changes. "It must therefore be regarded as a decided advantage that such uniform chemical bodies as digitoxin and strophanthin have been placed upon the market.

Santesson (*Lancet*) found intravenous injections of strophanthin increase blood-pressure, followed by full regular pulse, in grave cases of cardiac insufficiency.

Fraenkel hints that the action of strophanthin continues longer than that of digitalin.

EXPECTANT TREATMENT OF APPENDICITIS

Sir George Thomas Beatson, surgeon to the Glasgow Infirmary, says he has employed the expectant medicinal treatment for appendicitis for ten years and has no fatal cases following it. If the pus was not absorbed or evacuated externally, it opened into the cecum or rectum, and the results have been quite satisfactory. His treatment consists in preventing peristalsis by the use of Dover's powder, 2 1-2 to 5 grains given every two to four hours. Bismuth and gray powder are used if needed, and the rectal tube is employed to carry off flatus. The gray powder is not given for any laxative effect but as an intestinal antiseptic. The large intestine is emptied by soap and water enemata, but he does not aim at colonic lavage. Locally he uses light hot poultices. The food is restricted to small quantities of albumen water.—*Therapeuti. Medicine.*

MEDICAL TREATMENT OF APPENDICITIS

Pfister reports (*Medical Record*) seventy cases of appendicitis treated expectantly in the medical department of the University Hospital of Heidelberg, during the past two years. These included thirty of slight severity, twenty-five of medium gravity

and fifteen serious cases. All the patients were discharged free from symptoms, except one, who died after transfer to the surgical side; although, as there was delay in operating after the transfer had been made, the death cannot be charged to the medical treatment. All but strictly surgical cases where peritonitis is suspected should be treated, according to Pfister, with opium and the ice-bag. A better way is to secure perfect rest in bed, thorough emptying of the lower bowel with hot colonic flushings, saline laxatives if the patient is seen at the beginning of the attack, hyoscyamine to full physiologic effect, aconitine if fever, glonoïn and strychnine arsenate if shock.

PILOCARPINE IN MEASLES

In treating the laryngeal obstructions of measles, Montefusco notes good results obtained by the subcutaneous injection of pilocarpine nitrate, in doses of 1 milligram, repeated as necessary. His views are based on his records of forty-five cases. Two deaths occurred from pneumonia. He found this alkaloid an almost certain cure for the very severe obstructive forms of laryngitis during measles. This may be stridulous or pseudomembranous, the latter not being bacteriologically diphtheritic.—*Medical Bulletin*.

LECITHIN IN EXOPHTHALMIC GOITER

Berkley reports his successful use of lecithin in exophthalmic goiter. One hour after the dose, the patient feels the nerves quieted, and the acute symptoms cease. It is out of place with disturbed digestion and fails without the assistance of a milk diet. A further trial is suggested.—*Bulletin of the Johns Hopkins Hospital*.

COCAINE AND NEGRO CRIME

The Dietetic and Hygienic Gazette says: "How slow the southern people were to connect the hideous sexual crimes committed by negroes since 1893 with their widespread addiction to cocaine. Drink never had much more effect on the negro than

to make him 'a noisy, good-natured, child-like roysterer, foolishly contentious but easily controlled, and at all events impotent for any serious harm.' The kindly, gentle, well-disposed negro of 1865 suddenly became the unutterable monster of 1893. This metamorphosis coincided with the beginning of enormous cocaine shipments and sales. Even in Civil-War times he was loyal—a period in which he was subject to no restraints save those imposed by his own natural inclinations.'

"A southern negro with a cocaine 'jag' is a beast as socially unsafe as a mad dog.

"Herein is 'all the law and the prophets' on the subject of the negro's sexual crimes in the South."

We believe THE ALKALOIDAL CLINIC was the first to call attention to this fact, the warning being based on Dr. Waugh's studies of the cocaine habit.

THE TOOLS OF OUR TRADE

Prof. Rusby examined seventeen powdered drugs in the stock of one of the largest, most reputable houses in the drug business, whose name is a household word everywhere. In the seventeen specimens he found nine adulterated with olive stones and exhausted birch bark. The adulteration he ascribes to the miller, who abstracted the fine quality of drugs sent him and substituted a poorer quality.

Dr. Schieffelin suggests that labels bearing time limits be affixed to such fluid extracts as lose strength on standing.—*American Druggist*.

SUMMER DIARRHEA IN INFANTS

In one of our exchanges we note that a professor of pediatrics, treating of this disease, states that "bismuth subnitrate is the best remedy to reduce the number of stools." At the same time he advises brandy to be administered to a child one year of age, in doses of four to six drams during twenty-four hours.

How can a man be so ignorant! How can a man of such ignorance dare to occupy

so important a chair! Of course we know how strong is the prejudice some men have against adopting ideas coming from sources they personally dislike, but when these little lives lie in the balance, how can they sacrifice them?

First and foremost, above all personal consideration, comes our duty to our patient; and most assuredly, of all the patients who trust themselves to our care, none demand such absolute, such complete, devotion of ourselves to their interest as do these little innocent beings.

PERNICIOUS FEVER

Robert Gray, writing from Southern Mexico, thus describes (*Medical Summary*) his treatment of pernicious malarial fever: Glonoin, 1-250 grain, dropped under the tongue every fifteen minutes, ere long puts the failing heart-throbs into energetic action, slowly but surely pumping the blood back into the stagnant channels of the paralyzed members, and reseats dethroned reason in the palace of the brain. This done, cactina, 1-100 grain every fifteen minutes, for two or three hours, in conjunction with amorphous aconitine, 1-134 grain every fifteen minutes, eight or ten times, then every half hour

three or four times, recurring again to the fifteen-minute administration. The object is to dominate the fever, and the medication is pursued till this object is obtained or till systemic intoxication—drug-sufficiency—supervenes, admonishing the attendant that the limit of aconitine dosage has been reached. In 97 percent the result was the break-up of the fever. After this the aconitine is given every one to three hours, as indicated to sustain the influence. Even in cases that fail to yield before intoxication resulted, the aconitine medication is repeated at the earliest prudent moment.

In the rare cases not affected by aconitine, veratrum seldom fails to do the work. Some patients require three times the aconitine that suffices for others, the symptoms being practically identical. There is no rule of dosage other than domination or intoxication, the heart always being sustained by cactin or strychnine arsenate. Alternating these with aconitine is a favorable practice. If the support falters glonoin is resumed until the effect is evident. The author adds that hyoscine has rendered a service to whose appreciation no words can do justice. As a preventive treatment he employs podophyllin in purgative doses, with quinine suited to the age, giving nux vomica with the podophyllin.

::: DIAGNOSTIC NOTES :::

THREE TUBERCULIN TESTS

Of all the various tests recently discovered for the early diagnosis of tuberculosis the cutaneous test of von Pirquet is probably the best. The Calmette ophthalmalmo-reaction, although undoubtedly of considerable diagnostic value, carries with its use the possibility of injuring an eye and this, in the opinion of ophthalmologists, generally contraindicates its use. The hypodermic-injection method of making the tuberculin test, although recommended by some, is still "on the table" and at present the majority of the

profession are afraid to use it freely for fear of occasionally making a bad condition worse.

On the other hand, von Pirquet's method is very easily carried out, there is absolutely no possibility of danger and the results are at least 80 percent accurate. The solution used consists of Koch's old tuberculin, pure or diluted with sterile saline solution to which a small amount (say 1-4 to 1-2 percent) of cresylic acid has been added as a preservative. This may be used in three dilutions: 10 percent 30 percent and 100 percent. Von Pirquet himself origi-

nally used a 25-percent dilution of tuberculin, but in his last communication he states that it is, perhaps, better to use pure tuberculin.

THE VON PIRQUET TEST

The method of application suggested for von Pirquet's test is as follows: An area of skin on the arm is thoroughly washed and rubbed for a few moments with alcohol or ether, three small scarifications just like those used in the regular vaccination for smallpox are made, about one or two inches apart. The ends of the tube containing the lowest dilution are broken off and a small drop of the tuberculin touched to the upper and lower scarifications. Care is taken to prevent any of the tuberculin from touching the middle scarification which serves as a control. The arm is allowed to dry for a few minutes and is then simply dressed with a small piece of cotton.

If possible, an examination should be made at the end of each six-hour period. The reaction is considered negative if at the end of two days there is no increased redness around the inoculated area, in other words, if all three scarifications appear alike. In this event the test can well be repeated with stronger dilutions of tuberculin.

The reaction consists of a reddish pink area immediately around the tuberculinized scars, surrounded by an irregular lighter pink zone. The center part of this area is usually slightly elevated and may even, in severe reactions, be covered with small vesicles. However no inconvenience occurs even with the marked reactions, and there is absolutely no danger whatever.

MORE ABOUT THE TUBERCULO-CUTANEOUS REACTION

Instead of making scarifications, as has been previously suggested, the Germans have another method which is possibly better. The lancet or scarifier, enclosed with each package of tuberculin, is so made that it may be used in the old orthodox way, or as follows: The skin being cleansed as be-

fore, two drops of tuberculin are placed about four or five inches apart (this may be of either the same dilution, or if so desired, different dilutions). The scarifier previously sterilized in a flame is lightly pressed against the skin at a spot midway between the two drops and is rapidly rotated between the fingers, thus making a very slight mark. It is then placed in the first drop of tuberculin and the operation repeated; the third drop is managed in the same way. The Germans claim for this method ease, rapidity, and much better success especially with nervous children.

We bespeak for von Pirquet's test far wider usage for the routine examination of both children and adults. It can do absolutely no harm and may in many cases lead to a course of action which would otherwise not be thought of until too late. *Do not wait to diagnose tuberculosis until there is sputum and tubercle bacilli in the sputum.* Such cases are, to say the least, far more difficult to handle than those cases in which the only evidence of tuberculosis obtainable is a tuberculin reaction.

MODIFICATION OF HELLER'S ALBUMIN TEST

Lay an ordinary microscope glass slide on the black surface and on it place a drop each of urine and strong nitric acid (close together). The drops soon join and at the line of conjunction a characteristic film of albumin forms, gradually producing a milky veil over both the drops. The advantages of this test are delicacy, the small amount of urine necessary and the clearly discerned reaction.—Sachs in *Deutsche Med. Woch.*

HONESTY IN DIAGNOSTIC ERROR

At one of Senn's clinics the great surgeon called a student into the amphitheater and asked him to diagnose a case. When he had finished, Senn remarked: "The diagnosis differs from the one I had made, and the boy is right." Senn was great enough to do this. Did anybody think the less of

him for acknowledging the mistake? There are a good many men who are just now finding themselves in the unfortunate predicament of having made a mistake, and given their judgment upon matters in which they now see they were wrong.

THE NEW INDICAN TEST

To 5 Cc. of urine add one Cc. of 10 percent copper sulphate solution and an equal volume of concentrated hydrochloric acid. To this add one or two Cc. of chloroform and gently shake the mixture. The chloroform is colored blue if indican is present and the amount can be approximately estimated by the depth of the color.—Salkowski, *Zeitschr. f. Physiol. Chem.*

LOBAR PNEUMONIA

T. F. Reilly (*Arch. Diag.*, Oct., 1908), observing the patient's sense of weight in the affected side, of the hepatized lung, has found on questioning patients that as soon as the sense of acute pain due to the accompanying pleural affection has passed off, a sense of weight or of a load is felt; this should be a valuable sign in the early diagnosis of lobar pneumonia.

A NEW INSTRUMENT FOR THE ESTIMATION OF URINARY ACIDITY

H. R. Harrower's device is a graduated test-tube to replace the familiar buret. It is easy to handle, is just as accurate as the buret, much less expensive, and simple in use. The new acidimeter is so graduated that 10 Cc. is the first measuring point. From this upward the tube is so graduated in fifths of a degree to 100 degrees, each degree representing the amount of decinormal sodium hydroxide solution required to neutralize 100 Cc. of urine. The tube is filled to the 10 Cc. mark and two drops of phenolphthalein indicator solution are added. Then with an ordinary dropper decinormal sodium hydroxide solution is added, the tube being inverted after each addition till the color changes from a yellow to a light

rose pink. The acidity is now read off in the tube at the level of the tube. The normal acidity of a mixed twenty-four hours' specimen should lie between 30 and 40 degrees. If the urine is alkaline and the degree of alkalinity is desired, we substitute for the sodium solution decinormal hydrochloric or oxalic acid, the pink color present being just discharged by the acid.—N. Y. *Med. Jour.*

DEMONSTRATION OF PARASITE EGGS IN THE FECES

Telemann, in *Deutsch. Med. Woch.*, 1908, No. 35, suggests shaking a small quantity of feces with ether and hydrochloric acid, c. p., equal parts, until as much matter as possible is dissolved. On standing three strata are seen. First the ether holding fats in solution, second the acid solution with bacteria and fecal masses, while in the lowest stratum is insoluble matter such as cellulose, muscle fibers and parasite eggs.

BLOOD-PRESSURE IN ARTERIO-SCLEROSIS

R. D. Rudolf, M. D., C. M. (Edin.), M. R. C. P., London, in *The American Journal of Medical Sciences* reaches the following conclusions as to the blood-pressure in arteriosclerosis:

"1. In many cases of even well-marked arteriosclerosis the blood-pressure is not raised. This may be because the disease is localized to a part of the arterial tree, or because the heart may at last be giving up the struggle and hence the pressure, once high, has now fallen.

"2. In many cases of arteriosclerosis the blood-pressure is above normal.

"3. In a given case of arteriosclerosis, in which the pressure is found to be raised, it cannot be assumed that the pressure is high because of the disease of the vessel-walls, nor yet that the sclerosis is due to the increased pressure. For example, the arterial stiffening may be due to syphilis, and the hyperplasia to some intercurrent condition of nervous or toxic nature.



BILIARY SALTS IN TUBERCULOSIS

This article, which is translated from an article by Dr. George Petit, published in La Dosimetrie, gives a splendid resume of the role of the liver and its secretions in general disease, especially tuberculosis

II

DR. LOURTIER of Courrieres studied this subject, and in an article published in the *Journal des Praticiens* (February 29, 1908), under the title of "The Treatment of Tuberculosis with Biliary Salts," he says that "with the constant increase of weight in all my patients there coincided also a progressive decrease of cough, the disappearance of fever, insomnia and sweats, as well as a considerable increase of appetite."

"It is impossible for me," this same author continues, "in these brief notes to give my observations of each one of my patients, and they all very nearly resemble one another, except two of them. One of these is an old tuberculous alcoholic who grows neither better nor worse, and who told me yesterday, when he had the injection made, that he dared say he was much better. The other is a girl of sixteen, afflicted with disseminated bronchitis, in whose case the microscope does not show Koch's bacillus. After the tenth injection she (unlike the other patients) derived not the least benefit which would seem to show the specificness of the biliary extracts in tuberculosis."

"How shall we explain this antitoxic immunizing action of the liver in tuberculosis? Until the last few years opinions concerning the part which the biliary extracts play in the organism were not fixed,

though later experiments had demonstrated the antitoxic power of cholesterin. With this substance the virus of the cobra, the most venomous serpent, was successfully neutralized. Is it not to its antitoxic action that codliver oil with its biliary salts owes its reputation as a remedy in consumption?

"For three years Professors Gerard and Lemoine have had the great merit of utilizing this antitoxic property in combating tuberculous infections, and the happy results in their patients confirm their laboratory experiments. Lately, also, an Italian medical review reported two cases of tetanus cured by injections of cholesterin (Prof. Almaggia). Does not this immunizing action explain in a manner the resistance to tuberculosis which arthritic individuals display—in whom the biliary secretions are rather exaggerated?"

The physiological theories and clinical observations here adduced should not leave a conscientious observer indifferent and an explanation should be sought.

The first empirical observation which was my own point of departure was the following: A man 35 years old, tuberculous in the third degree, in an advanced cachectic condition, came to see me for a diarrhea from which he had suffered for seventeen days. All the ordinary therapeutic remedies had been tried without success. His temperature was 39° C. (102.2 F.) and his

condition was very precarious. I must say, however, that the examination of the abdomen, which was slightly painful, showed neither tympanites nor ganglionic engorgement. In the course of my examination my attention was drawn to the yellow tinge of the patient's skin and to the exaggerated size of the liver, and there was also a marked irregular tachycardia. I prescribed at all hazards 2 centigrams each of sodium glycocholate and sodium taurocholate.

I did not expect then any amelioration, yet when the patient came to me eight days later I found him in a far better condition; the diarrhea had stopped on the third day and he could eat some; the fever which still continued was reduced to 36.5°C . (97.7°F .) in the morning and a very slight increase toward evening. The improvement continued the following day and was accompanied with an improvement in the condition of the lungs, not ascribed to the remedy administered.

A second case was that of a female twenty-four years old, previously treated by me for tuberculous tracheobronchial adenopathy together with a slight pulmonary lesion of the first degree. This patient was taken ill suddenly with the syndrome of enteriform fever. No glandular tumefaction could be felt on palpation but the liver was enlarged in volume and painful. I prescribed three biliary granules *pro die*, taken at meals, and in five days a diarrhea (which was one of the symptoms) was definitely stopped after a progressive and immediate improvement. The fever was reduced, the appetite restored, and this lull was followed by an improvement of the general condition, less cough and an absolute cessation of expectoration.

The third case gave me a curious fact, which was that, concomitant with the general improvement, there was a diminution in the size of the liver and in connection with this the disappearance of the tachycardia. This last reminds me of the observation made by our confrère, Monin, that there seems to exist a relation between the biliary salts and tachycardia. I have myself observed analogous cases a number of times.

Tuberculosis is, however, not the only disease which gives rise to these manifestations. Other ailments, too, that are not readily defined manifest the same syndrome of tachycardia, enlarged liver and diarrhea.

Consequent upon these experiences and encouraged by satisfactory results I always had systematic recourse, both in my private practice and in dispensary service, to the biliary salts whenever I observed in tuberculous individuals what I may denominate an entero-cardiohepatic syndrome, along with a clearly defined lesion of the lungs.

I believe this syndrome is characterized by an autointoxication due to toxins or tuberculous toxalbumins, producing physiologic functional trouble without there being a specifically anatomic lesion, properly speaking, of the organ. So, too, is the enteriform diarrhea not due to intestinal tuberculosis any more than the tachycardia is due to any alteration of the myocardium or the enlarged liver to cirrhosis, but all these are mechanical reflex phenomena. The truth of this view I have had confirmed by a series of postmortem examinations.

This syndrome of diarrhea, tachycardia and enlargement of the liver seems to me to be due to an arrest of hepatic function or rather of the biliary function, the other functions of the liver not being affected at that period. It is only at a more advanced period of the disease or in another form of its evolution that an alteration of the hepatic functions are observed, characterized by cholemia or glycosuria, and then there must be an anatomic lesion of the organ.

The hepatopancreatic syndromes, according to Dr. Paul Carnot, are clearly distinguished from the preceding syndromes by the absence of biliary retention, especially by the absence of icterus, and for that reason, too, these syndromes are less apparent and have to be searched for with care.

(a) A transitional type may be represented by cases where a hepatic lesion of biliary origin finally becomes glandular and is accompanied by pancreatic lesions.

The case may be, for instance, one of cholecystitis or calculous cirrhosis together with pancreatitis, and the biliary syndrome

may be quite indistinct and the pancreatic syndrome still more indistinct. There may be little or no icterus, incomplete or intermittent, but the liver may nevertheless be enlarged, hard, deformed and painful at times; the spleen may be voluminous, and at the same time there may be variable digestive troubles with poor assimilation of fat or of muscular fibers; at times there may be glycosuria and rapid emaciation, showing concomitant affection of the pancreas.

(b) In certain other cases of this kind, on the contrary, the pancreatic troubles may take the first rank. These are what Gilbert calls biliary phthisis occurring in old people who have been affected with hepatic colics and in whom biliary lithiasis has existed silently, marked only by a slight transient cystalgia (colicky pain) or by a slight sub-icteric condition of the skin, or by occasional attacks of an intermittent fever; digestive troubles, on the contrary, are very marked, with capricious appetite (*anorexie elective*), bad assimilation of fat. Above all, there finally comes on progressive emaciation, far more marked than are the other signs; this is very probably to be attributed to the pancreas.

In all my observations there was a rapid improvement in the entero-cardio-hepatic syndrome after a few days' treatment, and what is curious is, that the more recent cases in whom the syndromes I am speaking about were observed were most refractory to the treatment. In contrast, in one case, in which the syndrome had existed for twenty-three days, the patient was relieved in forty-eight hours and in three days was in good health again.

Can we draw a lesson from this small detail? It certainly seems logical to think that the phenomena of auto-intoxication with the tubercular poisons have a tendency to limit natural processes, even when the virus is attenuated, and that it will suffice to revive or still better to reestablish biliary function and restore the antitoxic action of the bile. The poisons are at their maximum on their first appearance and more resistant than to the destructive action of remedies.

This clinical fact seems in perfect accord with experimental observations. Thus Almaggià, in working out the mechanism of Wassermann and Takakis' experiments on the neutralization of tetanus toxins by its mixture with the nerve-substance, arrives at the conclusion that cholesterin and lecithin have the same fixing effect on the tetanus toxin as has the central nerve-substance *in toto*. Profiting by these experiments he has treated two tetanus patients with injections of cholesterin and thus cured them.

Carta-Mules, following up this problem with experiments on the guinea-pig, made injections of pure toxin, toxin previously mixed with emulsion of lecithin or cholesterin, and pure toxin followed by cholesterin injections. Lecithin mixed with a very virulent toxin had no neutralizing action. Cholesterin may have an action of that kind, but it is always limited.

Von Behring and Wernicke have tried to determine the dose of the antitoxin which when introduced a certain time after the poison had penetrated would save the life of the animals. They have operated with diphtheritic toxin and they have ascertained that if the antitoxic serum is introduced immediately after the toxin the curative dose is twice as large as the immunizing dose. Eight hours after the administration of this toxin the curative dose has to be increased to eight times as strong, while thirty-six hours later the dose has to be eight times stronger again.

These experiments indubitably demonstrate that the curative action of the antitoxin is proportionately less efficacious as the time elapsing between the introduction of the poison and that of the antitoxin is increased. The time arrives, finally, when the poison fixes itself so intimately into the tissues that the antitoxin is unable to destroy the combination. These facts have been confirmed by Donitz and by the classic experiments of Decroly and Rousse.

It may almost be thought that the tuberculous poison produces at length a tuberculinization in which anti-bodies are engendered. Here is a view which I am con-

tent merely to call attention to without pretending to explain it.

It is well known that very advanced tuberculous patients whose organisms are impregnated with the tuberculous poison, that is, who are autotuberculated, do not react any more on the injection of tuberculin.—Dr. Georges Petit in *La Dosimetrie* for December, 1908.

(To Be Concluded.)

THERAPY IN PERTUSSIS

Prof. A. Czerny in the *Therapeutische Monatshefte* for December, 1908, differs altogether with the usually accepted notion and puts the nervous factor of whooping-cough above its infectious one. He regards the isolation of the patient as desirable but not essential to prevent infection, but rather for suggestive reasons, to which he ascribes the sometimes favorable effects of change of air and some bitter-tasting medicaments. He would not hesitate to put a child with pertussis in a general childrens' ward of a hospital. When the suggestion of medicaments fails to relieve the therapy must be completely changed to hydrotherapy and local treatment. Whether this idea of pertussis will find many adherents is doubtful.—Zappert in *Wiener Med. Wochens.*, No. 2, 1909, col. 115.

HORDENINE SULPHATE

Sabrazes and Guerive spoke before the Academy of Sciences, Paris, November 30, 1908, on the new alkaloid discovered by M. E. Leger in 1906, in the malted germs of barley. It is chemically a paraoxyphenylethyl-dimethylamine ($C_{10}H_{15}NO$). Knowing the efficacy of the decoction of the malted barley germs in enteritis, and encouraged by the physiologic labors of L. Camus on the same subject, Sabrazes and Guerive first assured themselves of the harmlessness of

the product and then undertook to try it therapeutically.

In infantile diarrhea with 5 centigrams a day and proportionately larger doses for adults they obtained favorable results in simple diarrhea, in mucomembranous enteritis and in typhoid fever. It is to be noticed that the remedy is not to be continued after improvement had supervened without danger of relapse.

In dyspepsias with acid hypersecretion the results with this remedy was equally favorable.

Lastly, the remedy has a cardiac tonic action and is not to be neglected though its energy does not equal that of digitalis, sparteine or strophanthus.—*Gazette des Hôpitaux*, 1908, p. 1686.

THE COLLOID METALS

The Hospital says that the metallic colloids are receiving considerable attention in France as therapeutic agents. Those specially exploited are the colloids of silver, gold, platinum and palladium; and of these the most active is silver. An infinitesimal amount of such a preparation hinders the development of microorganisms or completely sterilizes a bacterial culture. Experiments on white mice show that injections of colloid-silver solution prevent a fatal result following lethal doses of the pneumococcus. Mammary abscesses have been treated successfully by aspiration and local injections of colloid silver. Two cases of puerperal fever are also claimed to have been cured by intravenous injections. Gaillard found a markedly favorable effect in typhoid fever follow daily injections. After four to eight injections there was a rapid fall of temperature with abundant diuresis. Favorable results have also been reported in pneumonia, rheumatic fever and influenza, but neither silver nor gold colloid has any apparent effect in pulmonary tuberculosis.





MEDICAL PARTNERSHIPS: A CRITICISM AND A WARNING

*Some of the disadvantages and dangers of these partnerships are pointed out
by Dr. F. J. Moffatt in the first paper and commented upon by Dr.
G. G. Burdick, in the short paper which follows*

I HAVE read Dr. Gordon G. Burdick's article on "Medical Partnerships" with interest; his communications always are interesting. But it seems to me that there is one form of partnership so particularly dangerous and delusive that the younger men, inexperienced in the business side, should be warned. I refer to the union on indefinite terms of the established practitioner and the younger man, with usually a verbal, unwitnessed agreement on the part of the elder to retire from the field after a certain specified time.

It is a rule in business to provide even against possible dishonesty on the part of business associates. In this particular case a few moments will show that under such an arrangement the younger man is completely at the mercy of the elder and in no position to insist on the carrying out of any previous agreement. The elder has the acquaintance; he has been on the ground for years, and all that friendship, business and personal means he has on his side. The elder also has the influence of years. Besides, he has the money to make a showing, fine office, automobile, equipment, etc., to cast the younger man into the shade. The younger man inevitably acts as a substitute for the elder, and in no one's eyes is the substitute as good as the original

article. Consequently it comes that when the specified time is at hand, the elder is in a position "not to remember anything about it," and no papers being made out and no witnesses obtainable, there is no recourse.

And more than this. During the time of association the elder is in a position to cut the young man's charges or dull the appreciation of the people for his work in many slight and devious ways. An uplifted eyebrow or a judiciously careless word is all that is needed, and since it is not spoken of a competitor, people believe it.

If, on the other hand, there are definite articles agreed upon, it is found that physicians deal in an intangible commodity. We sell ourselves personally, professionally and otherwise. The profession of medicine is a science, an art and a business. One of the men may excel in one branch, another in another, and quite naturally both will not excel in the same line or be equally proficient in all. People come to have their choice, separate and apart from acquaintanceship. If now the younger acquire any personal following, jealousy arises, and the man who was anxious to leave the slavery can say or do naught too mean.

The younger man is sent for most often to do the surgery. Impossible again! Where is he to do it? Anywhere. In any private

house. Who is to be his assistant? The old doctor who, having received his training in the pre-aseptic days and who has done practically no surgery, is especially fitted to stand across the table. Just the other day I heard a man boast of having washed out a large wound with ditch-water and sprinkled in a proprietary antiseptic (subsequently condemned), suturing tight—and the wound healed by first intention!

What is worse, the elder man, having the acquaintance with the family, can practically dictate the surgical procedure while the knife remains in the young man's hand. If the case goes wrong, the blame accrues to the surgeon. The young man who goes up against this game, then, must expect not only to see the "antiseptic conscience" created in the hospital violated but to see another man use him as a tool to do surgery in order that the case may not leave the territory. A commercial scheme, Simon pure.

Far better is the crust of independence than the fawning, cringing loaf of an unbalanced partnership. And, in this day of general and special preparation and of various new therapeutic measures, the young physician who "bucks" the line indefinitely and alone has much the brighter future.

I believe in partnership and co-operation, but they must be "co." I believe that three or four college graduates, well prepared with a good general education and suitably chosen specialties, who were congenial, and who went to a new country, southern Texas for instance, choosing a prominent town, would do well. It is necessary that they go to the new country, for strange to say, any partnership in an old town is not favored and especially an arrangement with an older man recalls too many of the older men, the older doctor and his student.

I should like to join a group of this kind, providing the right financial arrangements were made, myself taking the physiotherapy. Such a group, suitably housed and located, would soon be the leading practitioners in their country and would have the opposi-

tion of the individual physicians, as the jealousy of the older resident men would forbid such an arrangement.

Theoretically, a young man with the modern exact methods of the laboratory diagnosis, and an older man deficient in the laboratory but vastly superior in tact and bedside experience, could each fill out the other's needs; but practically, from the unbridled association with an older man may the merciful Lord deliver me.

F. J. MOFFATT.

Beaver Crossing, Nebr.

[We referred Dr. Moffatt's communication to Dr. Burdick, asking him to comment upon it. This he did in the article which follows.—Ed.]

COMMENTS ON DR. MOFFATT'S LETTER

Many points in Dr. Moffatt's article are well taken and should be heeded by any man who may contemplate any kind of a union with physicians. I believe with Dr. Moffatt that no indefinite partnership should be formed, either with up-to-date physicians or with those who still survive, without any improvement, during the last twenty-five years.

It has been my idea that the proper arrangement should be an incorporated association, not for profit, controlled by a number of trustees and having dues sufficiently high to furnish a working capital for the concern. The principle of majority rule should always apply, and if it is found that one member simply cannot behave himself, have a by-law so the rest can separate him on a majority vote.

Under no circumstances should a young man serve as an established assistant to an old practitioner. He will earn only the contempt of the people and receive ingratitude from his superior. Unfortunately the days of apprenticeships are past, never again to return, and to be known as Dr. Knifen's assistant is always as great a curse as to be a moral leper in the community.

My conception of cooperation is along broad lines. I believe that it is possible to

get together in a body enough physicians who are fairly up to date. I have assumed that education has made possible sufficient progress among our members so that they can afford to suppress any dishonorable or selfish traits in this moral make-up, in the presence of a thoroughly well-developed economic principle.

If we look all around us and remove the scales of selfishness from our eyes we shall see governments, armies, navies, railroads, steamboat lines, industrial establishments, building enterprises, religious or lay organizations, and so on down the line to the busy bees, who have learned the great lesson that the welfare of the individual depends upon the welfare of the whole. That the principle will work with physicians we know, as there are now many of these concerns that have been in operation for several years. (Please don't ask for their addresses—this idea has grown to such proportions that it is difficult to answer all questions that are now asked.) No consideration would make a member of any of those concerns go back to the old way of doing business.

Briefly the advantages of cooperation are as follows:

It is possible to do business at 50 percent less running expense.

It will increase the business of each member 20 percent by the normal amount of referred work without any effort to influence it.

It will give sufficient capital to get an up-to-date office, hire the best kind of help and have the best equipment money will buy.

It will give you a man well equipped to do any special work that may be found.

It will give moral support both to patients and physicians, in diagnosis and treatment recommended.

It will make it possible for each physician to get a vacation at least once a year.

It will conserve his health, by allowing him to go to sleep when he has overworked and to stay in bed when he is sick.

It will make the physician to grow in knowledge and skill. He will learn by

association, even if he is content not to read.

It will protect all of them from the great American Deadbeat who saps about 30 percent of our energies at present.

When we see the advantages of cooperation and attempt to contrast them with the old system, we can just begin to realize what blankety blank fools physicians are who will let a warped moral nature stand in the light of progress. We may gain a two-dollar bill by rubbing a little salt in a sore spot in our brother, and be under the impression that we are about the cutest thing that ever happened. The chances are, however, that our brother observed our sanctimonious expression, and while he is rubbing the sore places he has his pocket full of salt for the practical joker who masquerades as a member of a learned profession, and will get even sooner or later.

To the public the medical profession has always been a queer lot of cranks. They cannot understand our ethics nor our vicious system of competition. Our well-meant efforts to separate them from their well-earned money has excited their humor; and when one of our High Priests of Ethics takes advantage of an opportunity to skin a member of the public out of a \$5000-fee for some trifling operation, they are quite likely to wink at each other and say, "I told you so."

We may try and delude ourselves that we are very scientific, well learned, and so forth. But the cold facts are that the public are not getting a "square deal" under our present system, and they know it.

If the medical profession were doing right by the public, we should not see an army of poor devils traveling all over the country looking for special talent to cure their bodily and mental ills. We should not see another army joining a faith-cult, trying to persuade themselves that their bodily infirmities are a figment of their imagination. We should not see yet another army of people with as curable a condition as asthma sitting up night after night inhaling some proprietary compound of niter and stramonium.

Who is to blame for these conditions? Simply the medical profession, whose members flock by themselves and either do not associate with their fellows or are led (or misled) by a flood of half-baked literature on medical topics. We can readily see why we have evil conditions to contend with in our practice.

I would advise any body of men who intend to go into an association of the kind suggested to leave out of consideration any physicians who would advocate the use of ditch-water as a surgical dressing. This fellow is ignorant or criminally careless. Anyway, he would add nothing to the weight of the association and would only bring discredit upon himself and his associates.

I believe, if Dr. Moffatt will think deeply upon this topic, he will readily see that it is not necessary to go to Texas or any other state. He can start in his own town. If his confrères won't associate with him, simply advertise and find men who will, then go in to win. It will be a fight, but the association must win, as it is in the position to do the best work.

GORDON G. BURDICK.

Chicago, Ill.

THE USE OF NARCOTICS

Our strenuous modern life and the fierce struggle for success and fame make great demands upon our physical and mental strength. This leads, especially in the case of those having a weak spot somewhere, to disease or breakdown. As business cares, worries and the fear of failure throw a great strain on the nervous system, ailments attended by pain and suffering are prone to arise. These conditions at once demand something for their relief and the question of the use of some narcotic or pain-relieving drug presents itself both to the patient and his physician.

No song of the siren was ever more seductive than the first trials of some of these drugs in relieving pain, producing sleep or calming excitement. The sufferer passes from agony to comfort and quiet and re-

joices in the belief that he (or she) has found a balm for his pains and sorrows. In this ecstatic condition and prompt relief lies one of the deadly perils of these pain-relieving or sleep-producing drugs. First, because the effects are so prompt and favorable and, second, because every dose helps to create a taste, craving or habit for more—and the longer the drug is used the greater this craving becomes, the more loudly every cell and tissue of the body calls for its continued and increasing use, until the poor victim becomes a complete slave to it. And what a slave he is!

His relentless master gives him no peace day or night, summer or winter, in sunshine or storm, if he is not constantly feeding his depraved appetite with ever-increasing doses of the drug. As his craving for the deadly poison grows stronger his body grows weaker; his appetite fails and his digestion suffers; his muscles become weak and flabby and he loses strength; his senses lose some of their acuteness and his nervous system its power and tone. The elimination of poisons from the system is retarded, and his body which, as a result of weakened digestion and assimilation is deprived of its proper amount of nourishment, must fight against this added load of retained poisons.

Nor does the damage stop with the body. The mind loses much of its force and activity. Clear thinking, correct judging and prompt willing are replaced by aimless reveries, distorted conclusions and vacillating purposes.

But the saddest and most stunning blows of all fall on the moral nature. There is more or less blunting in all cases, and in many, so far as a careful observer can judge, an entire loss of sense of truth and honor prevails. Regard and affection for and duty to those near and dear—in short all those things most highly prized in the world—are overwhelmed in the resistless flood of this enslaving appetite, and the morphine or cocaine habitué, or "fiend," will barter anything—everything—for a dose of the drug he craves.

In view of these facts the question naturally arises, What are you going to do

about it and how can the evil be checked? I would answer: (1) Educate the people as to the dangers in the use of all kinds of narcotics; (2) restrict their sale and transportation.

Under the first heading I would suggest the following rules for the public:

1. Never give a baby a dose of paregoric, laudanum, soothing syrup or anything of that nature to quiet it. If it is sick enough to need medicine, send for your physician, who will probably be able to relieve the trouble without creating a craving for or a life-long habit of addiction to the drug.

2. Never use pain-relieving medicines on yourself. If they, by chance, afford temporary relief, they merely mask the symptoms and your real condition is as bad or worse than before. Medicines that give relief in painful conditions nearly all contain habit-forming drugs. If they did not, a great majority of their manufacturers and exploiters would have gone out of business long ago.

3. Avoid so-called catarrh powders and cures. Many of them contain cocaine—one of the most dangerous habit-forming drugs in existence. The use of cocaine, especially among the negroes of the South, has very rapidly increased the last few years and led to most deplorable results.

The use of cocaine therefore should be carefully regulated by law and restricted within proper limits. The use of chloral hydrate and other sleep-producing medicines as well as the headache medicines of various kinds number their victims by thousands and their use is entirely too widespread and common.

The sale and transportation of habit-forming drugs should be most carefully regulated. They should not be allowed to be sold except to physicians, druggists, hospitals and scientific institutions where they are used for experimental purposes; they should not be administered for the relief of disease or suffering except by the physician himself or under his direction by the nurse; they should be obtainable from the druggist only on the prescription of a

properly qualified and licensed physician, and no such prescription should ever be refilled except on the direct or written order of the physician who wrote it. Demand that all patent medicines have the full and complete formula printed on the container, and then avoid as you would the plague anything containing opium, morphine, cocaine, chloral and the host of anodyne and habit-forming drugs.

Do this, and you will avoid one of the causes of weakness and degeneration which is threatening our civilization.

E. STUVER.

Fort Collins, Colo.

[We agree with Dr. Stuver as to the importance of restricting the sale of habit-forming drugs and of proper legislation to prevent their transportation to the laity. But the medical profession must have a hand in such legislation or we shall have a repetition of efforts to discriminate against him, as was the case with the notorious Mann Bill. And, by the way, we must not relax in the slightest our vigilance concerning this and similar proposed laws which are intended to (and would) hamper the dispensing doctor in the procuring of his supplies.]

The last Congress passed a bill, which (while its purpose was excellent) is directly along these lines. This bill (now a law) makes it unlawful to send cocaine through the mails. No discrimination is made in favor of the doctor, who is thus made dependent upon local dealers for his supplies of this drug. What is to prevent the extension of this class of legislation to all "habit-forming drugs"—all poisons? Nothing except our own "eternal vigilance." There certainly are powerful forces at work to bring about exactly this condition of things.—ED.]

PROLAPSE OF THE RECTUM

The first thing to do is to remove the cause of the straining and keep the patient in the recumbent position. The bowels should be kept open either with saline laxative or glycerin suppositories. When the prolapse

is reduced the buttocks should be strapped together by means of broad strips of Johnson & Johnson's Z. O. adhesive plaster, or you may apply a pad and T-bandage. The bowels should be evacuated with the patient lying on one side and the sides of the anus should be supported by pressure or by drawing the skin tightly to one side.

Enemata of cold water are useful or you may use ice cones about three inches long wrapped in iodoform gauze. The apex is placed in the center of the prolapse, which is then reduced along with the tampon; or you may try suppositories containing adrenalin chloride. In some cases injections of decoction of oak bark are very effective. A solution of krameria, sulphate of iron, nitrate of silver or alum is also good. My favorite has been alum, 2 drams, in one pint of water; with this the protruding mass is washed off before it is returned within the anus. Tannic acid, 30 grains to the ounce of lanolin, may be used with good results. The following ointment has done me good service:

Lead Acetate.....	grs. 10
Nutgall	dr. 1
Ichthyol	grs. 30
Morphine	grs. 2
Cocaine	grs. 2
Lanolin, q. s. ad.....	oz. 1

Apply this freely to the prolapsed mass and return within the anus. Repeat as often as necessary. A few applications generally cure.

In some cases a suppository containing from 3 to 5 grains of ergotin, used night and morning, will cure. However, the foregoing treatments are good only in mild cases, especially in children, hence in many severer cases we shall have to resort to more radical measures, such as the hypodermic injection of strychnine and ergotin into the tissues of the perineum, while in other cases we may be compelled to use nitric acid, which is applied to the mass, the surrounding tissues being protected by vaseline and the excess of the acid neutralized with common soda, whereupon the mass is returned within the anus. I have used this method with success

in children. Repeat in two weeks if necessary. One to three applications usually cures.

Where the above means fail it will be necessary to use the actual or thermocautery. I prefer the thermocautery, and the results obtained therefrom usually are good. The best plan is to draw four lines with the cautery in the long axis of the bowel, one in front, one behind, and one on each side. Then cover the gut with oiled lint and return the contents at once within the sphincter. This must be repeated in two weeks, when required. In children the cautery will rarely be necessary as the results obtained with nitric acid are generally curative in most cases, but in a few cases where all of the above means fail you will be compelled to resort to the scissors and trim away the redundant tissue in the hope that the resultant cicatricial contraction will cause a cure.

Another method is to use the clamp and remove about four longitudinal portions of the mucous membrane, cauterizing the stumps, which will result in cicatricial contraction of the dilated gut. In all chronic cases in which the orifice of the anus has become dilated it will be a good plan to cut out a V-shaped portion of the sphincter, posteriorly or at the sides, and suture them. In that way you may cause retention of the relaxed rectal structures.

Dr. Allingham, Jr., devised an operation for the cure of this trouble by incising the abdominal wall on the left side at the anterior third of Poupart's ligament. The rectum is seized and drawn up and the mesentery sutured to the abdominal wall, the object being to produce a firm adhesion so that the upper part of the rectum will be prevented from being intussuscepted into the lower. He claimed the results obtained were satisfactory.

Verneuil of Paris overcame the prolapsed condition by raising the bowel and attaching it in the region of the coccyx, but in long-standing cases of prolapse in which invagination has occurred, and where there is obstruction of the bowel that cannot be reduced, it will be necessary to perform a

laparocolostomy on the left side, to establish an artificial anus.

The above methods are the various means of treating prolapse of the rectum, and the several methods must be selected according to the severity of the case on hand. As most children affected with rectal prolapse are more or less in a feeble condition of health, it will be necessary to look after the various complications which may be a cause of the trouble, such as phimosis, contracted meatus urinarius, stone in the bladder, cystitis, constipation, diarrhea, worms, rectal polypus, and stricture of the rectum.

The internal treatment consists in giving tonics such as quassin, the triple arsenates, strychnine, bovine, quinine, ergotin and codliver oil. The food should be bland and easily digested, and all articles that cause bulky motions should be avoided. To move the bowels and avoid straining at stool give (to children) a teaspoonful of *confectio sulphuris*, B. P., at night, and they will have an easy movement in the morning; or you may inject 3 ounces of glycerin in the morning or use glycerin suppositories. Finally, cold sponging, cold hip-baths and electricity may be used. Apply the electricity to the perineum and repeat three times a week or oftener.

W. F. RADUE.

Union Hill, N. J.

EUROPEAN WATER-CLOSETS

So many correspondents have alluded to this humble topic that my intention was to avoid it. However, it is not without interest, and I have therefore decided to go to the other extreme and devote an entire article to it.

First of all, English-speaking persons are complimented by the very general adoption of the term water-closet by Continental Europe, where it is universally understood, and in France at least is often used to the exclusion of words of native origin.

The strongest impression which the American traveler gets, in considering this subject, or rather in having it thrust on his atten-

tion, is the absolute lack of false modesty manifested by Europeans. The common word for urinate in English is identical, except for inflections, with that in German and French. But whereas in English the word is seldom written or printed and usually pronounced with an apology or with the deliberate intention of being indelicate, it is used without hesitation by the Continental peoples. If an American needs to go to a toilet room when he or she is in company with those of the opposite sex, he—and especially she—postpones the call as long as possible and then sneaks off with a lie to the effect that he wants to get a newspaper or pick a cinder out of his eye or any other excuse whose transparency only adds to the general embarrassment. In Europe no one feels obliged to practise such deception. In many restaurants there is only one cabinet, and if one inadvertently intrudes upon a lady who is using it, he withdraws with an apology, but no one is seriously embarrassed. Often the men's and women's closets open from the same general apartment which contains the washstand and sometimes even the urinals.

In London most of the public toilet rooms are underground and the two sexes are kept entirely apart, but it is only a few years past that the streets still were used and that the trousers were made with an apron-flop which was let down as occasion required. In Paris and other Continental cities the public urinals seem to us rather inadequately screened, and occasionally there is no screen at all if an angle in a wall affords what is considered sufficient privacy. In parks and similar out-of-the-way places men and women often trust to luck not to be discovered.

Signs equivalent to our "Commit No Nuisance" are seen in postoffices, railroad stations, churches and similar frequented places. They are seldom seen in out-of-the-way alleys, etc., where we should expect them, apparently because of the realization of the certainty that they would not be heeded. But almost every convenient angle in a wall along the street is rounded off with a mass of cement or enclosed with a railing.

The Paris street urinals are plastered with venereal advertisements, bearing a government stamp, and as in other medical matters, a great deal of general medical information on the part of the laity is there presupposed. Some bear pretty good illustrations of pus and epithelial cells and gonococci, while the pros and cons of mercurial and other drugs are freely discussed.

In Holland and parts of Germany indecent rhymes and pictures are frequently penciled on the walls of the closets, and in this respect we are reminded of our home country. In France one is more likely to encounter political comment, as "*Vive l'Empereur Victor Napoleon*," "*Vive le Roy*," "*A bas la Republique*," "*A bas Zola*," etc. Many of the venereal advertisements are endorsed with thanks for cures or unfavorable reports, as the individual case had resulted. One critic, whom the regular physician would support, considered all venereal quacks as unclean thieves and poisoners. While indecent writings in the public urinals are rare, when they do occur they deal with the most disgusting perversions, including incest, unless the word for "sister" has some special slang meaning.

Travelers in Europe frequently complain of having to pay for the use of closets. It seems fairer to admit, however, that the public facilities are much more adequate than with us and that they are also freely provided for patrons of restaurants, hotels, railroads, etc. In addition, private enterprise has established numerous places where one may not only use urinals and water-closets but wash, brush the hair and clothing, etc. Stores on business streets, in Paris, are sometimes devoted entirely to this kind of business and are labeled with the English word "Lavatory." The charge for such conveniences varies from two to five cents—usually two pence in London and fifteen centimes in Paris. In an emergency one may apply at almost any shop or store, when a tip of about the same amount is expected as a matter of course.

On the whole, it must be admitted that the European method is more business-like and that it is better than having to impose

upon the good nature of a stranger or feeling obliged to buy a drink that is not wanted and which in addition may have a laxative or diuretic effect. Considering the very liberal provision of free toilet rooms, the aggregate tax is very slight. Moreover, the maintenance of clean and convenient toilet rooms for which a charge is made, whether they are under public or private management (both forms existing) provides humble but honest support for a considerable number of men and women who otherwise are incapacitated for more active work.

In this connection it may be allowable to digress so far as to say a word in defense of the tipping system in vogue in European countries generally. In these countries there is not the *a priori* assumption of social equality which obtains with us, and we must admit, if we are perfectly honest, that our beautiful theory that everyone is free and equal has not worked out in practice.

In Europe, if one receives a service from one in a humble walk of life, he is expected to pay for it, but he pays for it about what it is worth. The recipient takes it in a business-like way and he is friendly and usually efficient. At restaurants and in many analogous ways prices are regulated with the understanding that a tip will be given to the waiter or other attendant. Excepting where Americans have spoiled servants by giving the customary unreasonable American tips, the fees expected are very small.

Thus in America one buys a fifty-cent meal; the waiter usually is insolent and often incompetent and he expects a quarter and if offered ten cents will accept that with an implied insult to the donor. The Parisian pays twenty-five or thirty cents for a meal as good or better and gives a tip of from two to five cents. At a hotel in America one pays a dollar and a half or two dollars for a room and is expected to shed a liberal number of nickels, dimes and quarters. In Europe he gets a room fully as good, and usually cleaner and with a better bed, for from sixty to eighty cents, although it must be confessed that the hotel lobby and office are usually less imposing. He has to furnish his own soap and sometimes is charged

a few cents for light. He is expected to distribute his fives, tens and twenty-fives a trifle more numerous, but they are in pennies or centimes and, in the aggregate, his traveling expenses are not more than two-thirds what they would be in America.

To return to the subject of water-closets, one finds a greater variety of plumbing in Europe than in America, and on the whole, it is of a simpler nature. In the more pretentious hotels and restaurants as well as modern houses it is quite comparable to that found in America, although with less display of marble and nickel plating. In the cheaper and older places flushing is done with a faucet to economize water, and one often encounters closets without a seat but with iron footrests like those used by bootblacks, the weight on these footrests turning on the water. The simplest form of closet, frequently used, though not often discovered by the traveler, is simply a cement floor with an opening into a drain which is flushed out occasionally. In some cities dry urinals are used, consisting of wooden uprights, coated with mineral tar and oil. These are, of course, flushed off occasionally by a stream from a hose. They are, so far as I have observed, entirely free from odor—except of the tar—and can be reached without wading through water as so often is necessary in the case of those flushed by a constant current. While we may ridicule these simple devices they seem to be entirely sanitary and I have never encountered but one which was not clean, and this had apparently been recently and deliberately daubed with feces.

Heavy paper, such as newspapers, is frequently used in closets. In many public closets automatic machines deliver paper covers for the seat. The directions are printed in French, German, Spanish, Italian and English. This is the English version:

1. Drop a five-centime piece.
2. Push in the button towards your right hand to the bottom.
3. Take hold of the wrap-seat and unfold it.
4. Enter lightly both the holes bored angles in the wrap-seat in the plugs of the seat and strain the paper.

5. When getting up, keep fast to the seat the wrap-seat and let it then fall down again upon the close stool.

Let us hope that the directions in the other languages are equally lucid!

A. L. BENEDICT.

Omaha, Nebr.

THE TREATMENT OF BURNS

I note in your journal for December, 1908, on page 1606, carbolic acid recommended in the treatment of burns, the phenol to be mixed with 2 parts of glycerin. It may be good—I have never used it. I fear it would be liable to work harm in extensive burns. I should prefer to chance glycerin and alcohol in the same proportions. Alcohol is said to take the pain away instantaneously, although I have never tried it.

The old treatment of sweet oil and lime-water, equal parts, applied to a fresh burn has never been excelled in my experience. It should not be changed oftener than absolutely necessary. The best thing I have ever used is a dressing for a burn, big or little, after the sweet oil and lime-water, is onions sliced and fried in fresh butter—pressing out the oil as sufficiently extracted by the heat and applied on a linen cloth. It heals without a scar.

C. D. WOODRUFF.

Royal Oak, Mich.

CARBOLIC ACID IN BURNS

In response to the request of H. Stein of Altmont, Ill. (Dec., 1908, page 1606), I wish to state that some years ago I saw in some medical journal (ALKALOIDAL CLINIC, I think) the statement that pure carbolic acid applied to a burn would stop the pain instantly. I placed in my case a half-ounce bottle of pure carbolic acid as near full-strength as it could be and remain liquid.

Not long thereafter I was called to police headquarters to see two men who had been caught in the flames in a fire in one of the blocks of our city. These men were burned

all over the face, neck and arms, blistered in numerous places, with blisters broken. I commenced on the one burnt the most severely first, dipping a camelshair brush into the pure acid and shaking so it would not drip. After touching a few places the man commenced pointing out the sore spots. I followed his directions until he finally said that was all. I commenced on the second one then with a like experience. Then I covered the places with absorbent cotton and applied a bandage. The next day I removed the bandage and clipped away all loose cotton; where it was adherent I allowed it to remain until it came off, when the burns were healed or covered over with a new cuticle and no marks left.

After that, in another case of a second-degree burn the size of a silver dollar, I applied the carbolic acid in a like manner, pain stopping instantly.

WALTER MOFFAT.

Grand Rapids, Mich.

[Our own experience with carbolic acid in burns is in accord with that of Dr. Moffat. We are quite sure that the direct application of pure carbolic acid gives better results than any other treatment.—Ed.]

SOME HELPFUL HINTS

Burns of the Eye.—I trust that Dr. Colshier will pardon my commenting on his article in the August (1908) number, page 1075.

In the treatment of lime burns of the eye water is suggested for washing out lime. However, when water is used it slacks the lime and only sets up a more severe irritation, destroying epithelium, which later can easily terminate in ulceration. Instead of that, something to neutralize the lime should be used, such as vinegar or a solution of sugar. [Or else a bland oil: olive oil or cream.—Ed.]

For carbolic acid burns of the eye don't be afraid to use 75-percent alcohol to neutralize the phenol. Always, in injuries, including burns, of the eye instil atropine in

10-percent solution to keep the pupil dilated until all inflammation subsides.

Bruised Finger-Nail.—When the finger-nail has been struck a blow and you are contemplating going around among patients for the next six months with a disfigured nail, just place the finger under a running tap of cold water, thus contracting the smaller vessels and not permitting the blood to congest under the nail. The result will surprise you even though it is painful for a time.

To Detect Foreign Bodies on Cornea.—One drop of fluorescein, grs. 10, sodium bicarbonate, grs. 15, water, enough. This solution will turn any portion where the epithelium is removed a bright-green color, and will even stain pieces of glass and wood so that they can easily be removed with a spud, of course using 2- to 4-percent solution of cocaine before removing the body.

This is my first effort in journalism but I trust that the above suggestion may serve some brother in the time of doubt or need.

I. M. MILLER.

Saybrook, Ill.

[These are all good—splendid! We wish we might enlist one hundred readers of CLINICAL MEDICINE to contribute a big "bunch" of therapeutic items, equally condensed and equally helpful every month. We want Dr. Miller to give us many more such suggestions.—Ed.]

NIHILISM.—BURNS, AND OTHER THINGS

That chloroform, ether and cocaine ease pain, that most of the coal-tar derivatives do likewise, that morphine, cocaine and other opium derivatives also perform the same office, no one who has medical sense will deny. Pain constitutes the principal evil in disease, but it also gives us the demonstrable fact that pain can be controlled by drugs. How can any unprejudiced man contend that there is no virtue in drugs? These are only a few of the results that drugs will accomplish in disease, and if the doctor could do nothing more than to ease pain he would be the greatest benefactor; but there are a thou-

sand other things that drugs will do that are just as evident to the well-informed physician.

It is not worth while to go into detail and tell what mercury and iodine will accomplish in syphilis, the cinchona alkaloids in malarial troubles, the serums in infections, the vaccines in epidemics. These are only mentioned to make the matter plain. The editor could tell you in detail what drugs will do in autointoxication, and the facts are so numerous and so evident that proof is unnecessary.

The therapeutic nihilist is either a fool or a knave.

Burns:—For superficial burns, sodium bicarbonate made into a paste with water gives instant and permanent relief. (Another everyday illustration of what drugs will do.)

Burns of the second degree may also be treated with the soda paste, after immersion of the burn in water. Immersion in water shuts off air contact and thus relieves pain. If the hand or foot is the part to be treated the water will bring relief temporarily, the while other applications are being prepared.

Deep and extensive burns are like other wounds and must heal by granulation. They should be covered with carbolized gauze which has been soaked in glycerin, the dressings being renewed as fast as they become soiled. After the slough has been removed cleanse with peroxide of hydrogen and apply fresh gauze.

The shock incident to burns of the third degree is the most dangerous factor and often is so great as to defy treatment. Alcoholic stimulants are the safest and most reliable medication for shock.

Notes.—Read it again, the first editorial in the December number. Read it again. If you have not made an ass of yourself along some of the lines mentioned you are a good one. I do not know that the remedies mentioned are specific, but I know that physical health has much to do with one's mental condition. I also know that a word of cheer is a panacea to many trials. The editor is evidently a healthy man and

what he writes is certainly vivifying and is worth reading again and again.

W. P. HOWLE.

Charleston, Mo.

[We have had so many a lively (yet none the less pleasant) tilt with Dr. Howle that we peculiarly appreciate the compliment of the December editorial ("Melancholy and Autotoxemia"). The hints given are excellent, and we indorse every word the Doctor says about "nihilism."—Ed.]

THE TREATMENT OF BURNS

The treatment of burns I find should be varied not only for the degree and extent of the burn but also to the patient's surroundings. A treatment eminently adapted for use in a hospital or where a trained nurse is in attendance would probably be poorly suited for routine home treatment. Most cases where the surroundings will permit I dress with sterile gauze and cotton moistened with slightly carbolated sterilized water. This I have the attendant moisten occasionally with the same solution without removing the dressing. The next day the old dressings are removed and new ones applied in the same manner. When the dead tissue clears off the burns are dressed with the following ointment:

Bismuth subnitratedrs. 2
Ointment of zinc oxide.....ozs. 2
Carbolated vaselineozs. 2
Alboline, enough to make....ozs. 5

This is spread on closely woven cloth. An old sterilized bedsheet will do very well; gauze has too large meshes for this purpose. After washing the burns these cloths are applied and overlaid with a layer of absorbent cotton. These dressings are renewed once daily until the wounds are healed. They can be removed without pain for they do not adhere to the surface and there is no residue of the ointment left on the surface.

In some cases I lessen the amount of zinc ointment or increase the alboline. Often I use the ointment alone throughout the whole case. I have employed this for several years and found it very satisfactory.

I believe the bismuth is a very important factor in this application both as to the comfort of the patient and the rapidity with which the burns heal. Since it has been found that old sinuses heal up when filled with bismuth, I am more convinced than ever of its importance in this treatment.

Allow me to cite one case: A workingman fell up to his knee into a vat of boiling acid water used for cleansing pipes prior to coating. Considerable of the skin had been stripped off with the removal of the clothing. During the first day I dressed with sterilized water to which a little sodium bicarbonate had been added. Thereafter the treatment was as described above. In three weeks the entire leg was healed over with practically normal skin. About the end of the first week a surgeon was called in by the owner of the factory who, unknown to me, removed the dressings and inspected the leg and gave as his opinion that skin-grafting would be necessary, and if those should prove unsuccessful the leg would have to be amputated. As the patient objected to either of these proceedings I was left in peaceful possession of the case.

JOHN C. KAMP.

Buffalo, N. Y.

ANOTHER FORMULA FOR BURNS

In reply to H. Stein on the use of carbolic acid for treating of burns, page 1606, last year's volume, I wish to say that recently I treated a child $3\frac{1}{2}$ years old that was burnt from shoulder to pelvis, including arm and part of abdomen, and had excellent results from the following application which gave almost immediate relief from pain:

Acidi carbolic. drs. 2
Glycerini oz. 1
Aque rose. ozs. 7

Moisten sterile cloth freely with this solution and apply to the burn, keeping constantly covered.

J. A. McCOWAN.

Sitka, O.

[Aqueous solutions of phenol of low percentage must be employed with great

caution, particularly on extensive burns, because of the danger of absorption and consequent poisoning. But prolonged application also produces severe irritation, and often gangrene. It is different with a fatty vehicle. A 1:8 carbolated cerate (lard 3, yellow wax 1) will be found effective in burns and scalds. It quickly relieves the pain if the burn is thickly covered and tightly bandaged.—ED.]

AN APPLICATION FOR BURNS

Having had no experience with Dr. Stein's carbolic acid and glycerin mixture in burns I cannot express myself upon it. But the following dressing has on many occasions yielded most excellent results in burns of the first and second degree:

Carbolic acid. grs. 5 to 10
Bismuth subnitrate. dr. 1
Petrolatum oz. 1

Apply on lint. On application the pain subsides almost at once, while rapid granulation and healing of the wound follows. No other treatment of burns used by me has ever given me an equal amount of satisfaction.

S. A. E. JOHNSON.

St. Louis, Mo.

[Personally we prefer to apply pure carbolic acid, then dress with cotton, clipping off loose edges or excess of dressing in twenty-four hours. While we have had no experience with carbolic acid and bismuth Dr. Johnson's experience goes far to show that the combination is a good one. We shall try it out at an early opportunity.—ED.]

PICRIC ACID AND OTHER REMEDIES FOR BURNS

In reference to treatment of burns and scalds, as discussed in CLINICAL MEDICINE for January, page 93, I would say that I have seen fine results from the application of solution of picric acid, also of normal salt solution, the former as a wet dressing, the latter as a bath. Both were employed in hospitals.

I have also used successfully the so-called carron oil for the first twenty-four hours, followed by boric acid in petrolatum, in the proportion of 1 in 8. Apply on sterile gauze and cover with dry sterile gauze. Another good dressing is boric acid worked up into ordinary carbolic-acid ointment until it makes quite a stiff paste. Apply like the foregoing.

The carron oil is used as a wet dressing, of course.

I prefer ointments because the dressings stay soft longer. I have used unguentine with success in frostbite.

CLINICAL MEDICINE is the most helpful journal I read, also the most interesting.

C. F. ABBOTT.

Elmira, N. Y.

PNEUMONIA

In the January issue of *The Chicago Medical Times* Dr. Graves contributes an editorial so much to the point that we reproduce it here, feeling that we could not better fill the space:

"November 27 I was called in consultation to see a lady of sixty-four. She had had a chill twenty-four hours previously. Temperature 103.2° F.; respirations 44; pulse 150, irregular, full and bounding; there was cough with severe pain in the right side of the chest. Auscultation revealed many crackling râles over the lower lobe of the right lung, anteriorly and posteriorly. The tongue was moist, but coated at the base. The attending physician had made a diagnosis of right lobar pneumonia, in which I concurred. A libradol poultice was applied and kept *hot*. She was kept in bed and not allowed to raise herself at all. *Veratrum viride* and *bryonia* were given every two hours, and *strophanthus* in four-drop doses every three hours. The second day after I saw her the temperature was 99° F. and the pulse 100. The cough was severe, and the sputum was slightly streaked with blood. On the fourth day the temperature was subnormal, the pulse 84 and comparatively regular, and the old lady wanting to sit up. What was it? Was it

mumps, whooping-cough, dysentery or acute Bright's disease? We thought it a case of lung-fever, but it couldn't have been, for authorities say 'pneumonia cannot be aborted.' Anyway, the woman got well practically in five days; she is happy, so is the family and the doctor. No serum, no opsonic index, no bugs—nothing but good care, prompt treatment, careful selection of indicated remedies given in proper dosage, at the right time—and success. If this was the overexuberance of a yearling with his first case of pneumonia you could forgive his enthusiasm, and in your wisdom say, 'Oh, wait 'till you get a real case once, and see how you will come out.'

"Real cases have been treated by Eclectics for many years with just such success as shown by the above, not one, but hundreds all over this land. Isn't it about time that you, Mr. Regular Physician, tried something that will give results in pneumonia? You have accused eclectics generally of being the most egotistical set of physicians living. Can more egoism be shown anywhere or in any way than by that man who, having positive proof of the beneficent and curative action of drugs, refuses to use them because they have not received the stamp of *regular recognized authority*? Wouldn't you feel better, deep down in your conscience, if you were to save the life of one good old woman by treating her 'irregularly' than if you let her die by 'regular' methods? And you can't say, 'They may mean well, but are mistaken,' or 'They are fanatics.' Too many of us! Too much proof against you! Too many Abbots who have proven something and hold fast because they are right and know it!

"The next case of lung-fever you get use the specific-medication idea regardless of whether you are an Oslerite, Bevanite or Billingsite. If you are ashamed to cure your patient boldly by these methods, fix up the specific medicine yourself, where no one can see you, or use Abbott's granules and learn that eclectics are not all hot air and egoisms. Or you can call in a number of men who are *professed regulars* but who practice eclectic medicine, gradu-

ates from eclectic schools, and think they have an easier time when they sail under an old-school banner. Give the patient a fair show; that's all we ask. Even read your own most intelligent leader, Hobart Amory Hare, who wrote in his latest work on "Practice:"

"If the patient is a strong sthenic individual, with a full bounding pulse and great flushing of the face, full doses of veratrum viride or aconite are advantageous. Further, whether such treatment aborts or jugulates the attack is difficult to determine." John M. Scudder, fifty years ago, in his 'Specific Medication,' page 263, gave the indications for veratrum in exactly the same words, though I cannot find any reference in 'Hare's Practice' to that effect.

"The Bulletin of the Chicago Health Department for November, 1908, shows more deaths from pneumonia in the first 333 days of 1908 than from any other disease. This can be changed in 1909. First, by promptly recognizing the disease and surrounding the patient with favorable conditions. Second, by treating the symptoms with indicated remedies. We *know* pneumonia is just as certainly cured as malaria, when perfectly treated.

"I hear somebody say, 'Won't lose any cases if I treat 'em that way, hey?' Yes, you will lose some, but you will cut your ordinary death-rate in pneumonia easily in half. Anybody else vouch for this?"

GRIP, PNEUMONIA AND CROUP

I have treated a great many cases of grip with many complications by the alkaloidal method this winter. Fortunately none have as yet developed genuine pneumonia. Whether I aborted them or whether they just were not going to have it, I cannot say.

Here is a sample: Called on the morning of Jan. 12. Patient, male, age 35; temperature 103.6° F.; pulse 100; hacking cough. Pain in left side, red sputum; middle and lower lobe of left lung almost solid. I said, "Pneumonia."

I gave calomel and podophyllin and saline laxative for the clean-out, the combination

of aconitine, veratrine and digitalin for fever; hot antiphlogistine covered with cotton batting applied to the chest. In the evening the temperature was 100.4° F.; pulse 80; lung clearing. I called next morning, found patient sitting up in bed clamoring for food. No further medication except tonic. Left, patting myself on the back over the happy results, but missing the fat fee in the right pocket.

What a bugaboo croup used to be to me. Now a hypodermic of apomorphine, a little calx iodata and I go home whistling—only been out an hour.

A. S. RATTAN.

Channing, Tex.

THE TREATMENT OF PNEUMONIA

The patient should occupy a well-ventilated room with plenty of fresh air. The air should be moistened by the evaporation of water on an alcohol lamp. The diet should consist of liquid food with egg-albumen and plenty of water or lemonade.

After making the diagnosis I usually prescribe the following: Calomel and podophyllin, 1-3 grain of each, to be taken every hour for six doses, following with a saline laxative repeated until the bowels are thoroughly cleaned out, and keeping them this way. I use as a fever mixture the defervescent compound of aconitine, veratrine and digitalin, giving it every hour until the fever falls to 101° F., then enough more to keep it there. Don't be afraid to give it. Watch the heart and guard it with strychnine arsenate and cactus if necessary. After the bowels have acted freely I begin with from 40 to 60 grains daily of the sulphocarbolates and continue these salts as long as there is any odor to the actions from the bowels.

For the cough I usually prescribe the following: Ammonium carbonate, 2 drams; codeine sulphate, grs. 10; emetine, grs. 1 1-2, syrup of tolu 2 ounces, distilled water to make 4 ounces. A teaspoonful of this is given every three hours.

For the pain in the side, which is usually severe, I have applied a mustard draft,

which usually relieves this in a short time. I use a few drops of pure guaiacol over the lungs, rubbed in well, then apply cotton batting saturated with glycerin, changing this every twelve to eighteen hours, using the guaiacol every time unless the fever is down to normal. Watch for complications and treat them as they arise.

During the present and past winter I have treated over one hundred cases of pneumonia and aborted, I think, half as many with the treatment. I have lost very few cases.

MARION DILLON.

Fairfield, Mo.

[The very best way to answer an opponent's argument is, to put it to the test of experience. Will his theory work? Many have found by *actual trial* that the ideas relative to the treatment of pneumonia so often advanced in *CLINICAL MEDICINE* do work. They are practical. That's the reason why active-principle therapy is making so many and such good friends.—ED.]

DIPLOCOCCUS RHEUMATOID ARTHRITIS

Some two months ago, or about November 1, 1908, the writer began to feel a rheumatic condition with tenderness and some swelling of the right knee, seeming to come from a slight hurt to the knee. Finding it did not go away in a few days, but became worse, the usual rheumatism remedies were tried. These afforded only temporary or no relief; in fact, the knee grew worse. After about six weeks of such treatment I concluded the origin of the trouble must be bacterial, and as I had at that time an invasion of *diplococcus pneumoniae* in the nose and throat and knowing that these germs are carried in the blood, I decided the knee trouble was due to these. The first dose (5 tablets) of creosote with the sulphocarbolates and the arsenates of iron, quinine and strychnine, with nuclein, at once began to relieve soreness and pain. Twenty-milligram doses of creosote a day and from 20 to 40 grains of the sulphocarbolates of sodium, zinc and calcium com-

pletely cured the knee in less than two weeks.

G. H. FRENCH.

Carbondale, Ill.

A CURE FOR COLDS: AN IMPROVEMENT ON DR. HOWLE'S FORMULA

On page 215, February number of *CLINICAL MEDICINE*, Dr. Howle gives his hobby for coughs and colds: quinine and acetanilid in big doses. The editor asks who will improve it. I think the following will prove superior:

Quinine sulphategrs. 20
Acetanilidgrs. 10
Powdered camphorgrs. 10
Dover's powdergrs. 30
Ammonium chloridedr. 1

Make into 50 capsules.

This is a favorite prescription of mine. I use it in coughs, colds, grip, and so forth, and always with the best results. I am often asked for some of "those capsules," since I seldom give a prescription.

J. WM. TRABERT.

Lebanon, Pa.

A PRESCRIPTION FOR WINTER COLDS

To Dr. Howle's cough and cold treatment (in February *CLINICAL MEDICINE*) I wish to add my own experience. For the past ten years I have been in the habit of prescribing the following:

Quinine sulphategrs. 20
Acetanilidgrs. 15
Capsicumgrs. 10

Make into 10 capsules. Directions: Take one every two hours.

This has given almost universal satisfaction in the treatment of winter-colds. In this combination the acetanilid does not act as a depressant but quiets the chilly sensations, that are so annoying, by equalizing the circulation. Try it.

C. B. DEAN.

Wakenda, Mo.

[Why not quinine hydrobromide—a less disturbing salt of quinine than the sulphate?

Try aconitine and atropine to equalize circulation. Capsicum is indicated, as Dr. Dean's formula suggests, for the chilly sensations (we cannot see how acetanilid will relieve these); but it should not be forgotten that these sensations usually mean *infection*, calling for elimination, systemic antiseptics and circulatory balance.—Ed.]

STINGAREE POISONING VS. EARLY COLONIAL MEDICINE

The article on stingaree poisoning in CLINICAL MEDICINE brings to my mind the case of Capt. John Smith of early Jamestown (Va.) fame.

The first recorded medical case and the first regular physician in attendance in colonial history was a case of stingaree poisoning. In one of his early explorations Smith was stung by a "stingray," as the records of the case show. "Yet it pleased God by a precious Oyle Doctor Russell first applied to it, when he sounded it with a probe, his tormenting pain was so well assuaged that he eate of the fish to his supper."

The indications are plain for stingaree poisoning. Russell's Oyle, a painless probe—then eat the culprit.

WILLIAM S. DISBROW.

Newark, N. J.

A MEDICAL JOURNAL MERGER

The *Central States Medical Monitor* with the February issue will change its name to *The Indianapolis Medical Journal*, and *The Indiana Medical Journal* will merge with it. The editorial force will continue with S. E. Earp as editor-in-chief and Dr. A. W. Brayton, formerly editor of *The Indiana Medical Journal*, will be editor of the merged journals. Some important changes will be made.

The *Monitor* has been in existence for eleven years and *The Indiana Medical Journal* eighteen years. Both journals have had successful and honorable careers.

We wish the new journal all possible success. With the prestige of two such ably

edited journals merged into one and the joint efforts of two such brilliant editors to care for its future, *The Indianapolis Medical Journal* should take rank as one of the very best publications of its class in the country.

THE CHANCE YOU ARE SEEKING

We are quite sure that *all* the readers of CLINICAL MEDICINE are not looking for an opportunity of investing \$125,000 in a home. But for those of you who are, go and take a look at Tarrywile, Dr. W. C. Wile's magnificent home at Danbury, Conn. Situated on the shores of Long Island, within two hours' ride of New York City, what more delightful location could one ask! Danbury itself is a very pretty and a very pleasant city, and a good place to live. The house and grounds are so beautiful!—well, we won't try to describe them. Write to Dr. Wile and ask him to send you a little pamphlet he has published, giving a description of his home. The grounds contain 110 acres, with every improvement that can be imagined. Get the little booklet, and if you do not buy the place, join us in feeling glad that a brother physician and editor is so fortunate as to possess it.

TREATMENT OF PHLEGMONOUS QUINSY

Recently I had to treat two cases of phlegmonous quinsy. In both instances, when I was called, the patient could not open his mouth. The only way I could help them was by running my index-finger into the mouth along the gums back to the angle of the jaw and then down back of the teeth in the throat, using my finger to protect the lance, and as soon as I felt the fluctuating mass to lance it. Is this manner of treatment good? Is there any method of lancing these cases by sight?

H. C. CALDWELL.

Ridgeland, Wis.

[Under the circumstances I do not see how the doctor could have done otherwise, nor do I see what harm the method can do. I

have more than once had to do the same thing. Of course I have always felt that a fatal hemorrhage was prevented by the Grace of God rather than any skill—but there is really no great danger, as I now know. If the character of these cases could be recognized *early* and calcium sulphide given to saturation, with full doses of nuclein, taken on the tongue, and proper local antiseptics, not nearly so many would go to abscess formation.

DO YOU WANT A GOOD LOCATION?

We are in constant receipt of requests for good alkaloidal practitioners and we ought to have on file the names of men who could take these places and would be glad of the opportunity. Right now we know of good openings in Kansas, Pennsylvania, Texas, Oregon and California. The men wanted for these places must be live, clean, honorable, up-to-date physicians who practise alkaloidal therapeutics. If you are interested, send in your name and we will put it on file, referring those answering the requirements to the proper person.

ROSE'S "MEDICAL GREEK"

In the January number of your esteemed journal appeared a criticism of my book, "Medical Greek," in which criticism are said many good words for my exertions toward reform of medical onomatology. I appreciate it highly and am sincerely grateful, at the same time I beg to call attention to an essential point which my critic has not spoken of.

My onomatological studies are based on Lavoine's idea, given in the book, and on the question, Shall we have a scientific nomenclature, as has been the cry during these past hundred years, or not?

Science does not permit anything which is incorrect or improper. Science cannot make concessions in this regard. Torbern Bergman, the great scientist, pupil of Linné, wrote during the last days of his life to M. de Mowau, one of the Lavoisier's co-operators: "Do not spare one single improper

term." I trust that every lover of science who has familiarized himself with the classical term will find it more and more intolerable to name a scientific conception by a Greek- or Latin-like sounding word-monstrosity.

My critic advises *festina lente*, while I have been preaching onomatology reform these fourteen years. The history of my struggle will form an interesting chapter in the history of medicine. I hope to induce every physician who is proud of his vocation at least to read my book in order to learn how we can elevate the profession by using correct medical language.

A. Rose.

New York, N. Y.

BISMUTH OINTMENT IN TUBERCULAR DISEASE

Apropos to the question of bismuth ointment in the treatment of tubercular diseases. I had a gentleman consult me about a sore on his face which proved to be lupus. I prescribed a bismuth ointment which effected a cure in a short time. This was in 1893. Since then I have used this ointment very freely in many cases of ulcerating sores with great success.

JNO. B. BASKERVILLE.

Dublin, Va.

[Will you not favor us with the full formula and a more detailed discussion of the lesion. We are appreciating more and more each year the value of bismuth.—ED.]

A REMARKABLE INJURY—WITH SPECIMEN

A short time ago a surgical case came under my observation so much out of the usual order of things that I thought a brief report of it might be of interest to the readers of the journal.

Dec. 6 a young man came to one of my confrères with an open sinus just in front of the lower end of the ear which had been discharging pus for about ten days. I was called in consultation, and after a care-

ful examination we decided that there was a splinter of necrosed bone causing the suppuration. Removal being decided upon, Dr. A. E. Shaver giving the anesthetic, after a tedious dissection I removed, not as we suspected a necrosed bone, but a brass belt-rivet, which was firmly imbedded in the tissues under the external carotid.

Five years previous the patient, while working in a factory, was struck by a broken belt which was on a pulley running 4000 revolutions to the minute. The wound healed without serious trouble and he had suffered no inconvenience from the rivet remaining imbedded until a few weeks before its removal.

Examination showed the presence of a scar at the point of entry of the rivet, this being located an inch and a half from the front side of the ear toward the eye, or about half way between the eye and the ear. This scar is almost a perfect cast of the rivet which caused the injury. In color it is a bright-red and shows that the rivet must have struck sideways, or flat, against the face, but turned in its course, for when



The belt rivet—actual size

found it pointed straight toward the brain, or at right angles to the scar.

When the rivet was found it was close in front of the ear, showing that the direction that it traveled must have been from the scar toward the ear and inward. The surgeon who dressed the wound at the time of the injury evidently was not looking for foreign bodies.

I enclose herewith the rivet itself. The main interest of the case is the wonderful tolerance of the tissues to the presence of a foreign body of that nature. The wound healed by first intention and the patient is at work.

J. H. BENNETT.

Boyer, Mich.

[We reproduce a picture of the rivet, which will show its exact size.—Ed.]

THE BOOMING OF THE AMERICAN JOURNAL OF SURGERY

The American Journal of Surgery continues to prosper. The latest evidence of the splendidly efficient work of its publisher is the addition to its editorial staff of Dr. James P. Warbasse, formerly editor of the *The New York State Society Journal*. With such brilliant men as Brickner and Warbasse to look after its editorial destinies *The American Journal of Surgery* seems surely destined to take a first place in the medical journalism of greater New York.

Perhaps it was in anticipation (or realization) of this fact that a special Greater New York Number is announced for March in which all the original matter will be contributed by New York City surgeons of note. Among those who will contribute are Dr. Howard Lilienthal, Dr. James P. Tuttle, Dr. James Van Doren Young, Dr. Willy Meyer, Dr. Albert E. Sellenings, Dr. Walter M. Brickner, Dr. John A. Hartwell, Dr. T. F. Hopkins, Dr. James P. Warbasse, Dr. H. Beckman De Latour, Dr. S. W. Bandler and Dr. William K. Simpson.

We congratulate our good friend MacDonald on this splendid array of surgical talent, seldom equaled in a single issue of a medical journal.

POSTPARTUM ECLAMPSIA

The doctor treating the case referred to in January *CLINICAL MEDICINE* (page 79) says: "I had a case of puerperal septicemia that had been left on my hands by another doctor and which I had to see that morning; so left, promising to be back in two hours." How could the doctor safely treat other obstetrical cases while having a case of puerperal septicemia on his hands? What means did he take to prevent carrying the infection?

If a doctor is treating a case of erysipelas and is called to an obstetrical case, should he take the case or should he refuse? How

long after treating a case of erysipelas can a doctor treat an obstetrical case?

What is necessary in the way of changing clothing and what kind of disinfection should the doctor use?

C. W. HUNT.

Brevard, N. C.

[These are pertinent questions which we shall be glad to have readers of CLINICAL MEDICINE discuss—but *in the fewest possible words*, please. What is *your* opinion, Doctor?—ED.]

THE REMOVAL OF NEMATODES

As the readers of this journal already know, these parasites are exceedingly prevalent in the Philippines. I have tried several combinations, in attacking them, and find the "worm-remover" combination of chelonin, santonin and podophyllin the best of these.

I got a valuable wrinkle in this connection from a native teacher. To remove *all* the worms, it is necessary to give santonin continuously for three days. I have found the ideal treatment to be as follows: Give a child of three to eight years one fair dose of the above combination on retiring at night, and a small dose every two hours, while awake, for the next three days, winding up with a brisk saline on the morning of the fourth. Enough should be given to keep the bowels loose, but not enough to purge. I think there is no danger of poisoning from this combination.

When the worms come out, they are generally very still. But if they are poked or moved around, they immediately become quite lively. Sometimes they are lively without this stimulus. The apparent numbing I believe to be due to the emergence of the worms into the light. They try to hide in the feces.

I have seen a case of santonin poisoning from a single large dose without the expulsion of any worms.

The size of the dosage of an anthelmintic needed to be effective has been proved to be proportionate to the size of the patient.

It has not been proved that santonin has any direct effect on any parasite.

I do not claim the right to write "*q. e. d.*," after the above, but it makes me suspect that the undoubted vermifuge effect of santonin is due to its unexplained action on the host, and not to any direct action on the guest.

C. F. MORRISON.

Springdale, Wash.

MORE ABOUT "PHORESIS"

My attention has been called to an article in a late number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, entitled "Phoresis—a Rejoinder to Dr. Neiswanger," in which Dr. Bennett undertakes to correct certain alleged errors of nomenclature in the field of phoresis, and defends himself against certain strictures which Dr. Neiswanger made as to accuracy of definition in Dr. Bennett's "Electro-Therapeutic Guide."

There is unquestionably much confusion and lack of clearness in the writings of electrotherapeutists upon the subject of phoresis, and I agree with Dr. Neiswanger that the definition of Dr. Bennett as to the nature of the phoretic process leaves much to be desired. Dr. Bennett's language in his last edition, pp. 73 and 74, is as follows: "Phoresis is the general term for that property that is had by the constant current to drive compound substances—a compound salt in solution, for example—into and through the tissues of the body."

Let me say, in the first place, that I approve of the term phoresis as the generic term for what has been variously known as cataphoresis, anodal diffusion, electrical osmosis, voltaic narcotism, etc. However, that there is a transfer in mass of the substances which are to be introduced into the tissues, and that they are "driven" through the tissues in the sense of being physically transferred from anode to cathode, or *vice-versa*, obviously is not true. A brief analysis of the process will make plain what actually does take place. The process of phoresis is made up of two elements, viz., electrolysis

and a physical transfer of fluid carrying the decomposed elements or radicles.

The generally accepted theory of Grotthüs clearly shows that the decomposed elements contiguous to the anode are successively combined and recombined with the molecules intervening between the anode and cathode and only those free ions contiguous to the cathode appear at that pole. There is thus no actual driving of medicaments through the body, such that the ion enters at the anode and passes through the tissues and reappears at the cathode. As a matter of fact, that remedy which is adjacent to the cathode gives up its electropositive element because it has no other molecule to disintegrate and combine with. It thus appears uncombined at the cathode.

Now, the consideration which leads to error in the process of phoresis is that undoubtedly there is an electrical osmosis or physical transfer of fluid under the influence of the electric current. This may readily be proved by placing two porous cups containing water and filled to unequal heights into a larger vessel, likewise containing water. If now the positive pole attached to a galvanic battery be introduced into one cup and the negative into the other, it will be noticed that after a short time the fluid in the cup containing the positive pole is reduced and that in the cup containing the negative is increased. That this is not simply an osmotic process, that is, the passage of a fluid of lighter density through an animal membrane into a fluid of heavier density, may easily be shown by placing the positive pole in a fluid of heavier density, which will then be carried in an opposite direction into the fluid of lighter density.

This analysis will show why it is inaccurate to talk of "driving" compounds through the body. What actually does take place is an electrolytic decomposition of the compound, with innumerable combinations and recombinations of ions, with the development of that peculiar intensity of action to which the term "nascent" is applied. The merely physical portion of the process is of little consequence since there is no advantage in driving a fluid

through the tissues. The fluids already exist in the tissues, ready to act as carriers of the medicaments, though it is, of course, probable that there is a movement to some extent of these fluids toward the negative pole. That, however, is not a driving in in the sense conveyed by the definition in Dr. Bennett's book.

Further than this, the effort which Dr. Bennett makes to change a nomenclature long in use as to the terms cataphoresis and anaphoresis would not seem to be justified either by custom or reason. The term cataphoresis, coming from the Greek *kata* (down) and *pherein* (to carry), evidently had its origin from the fact that the current passes from anode to cathode, that is to say, down, and as most medicaments were placed upon the anode, it is evidently a correct designation of what takes place in most instances.* The term anaphoresis may be employed for those cases where it is desired to repel a negative ion to the positive pole as where a solution of potassium iodide is used, the solution in that case being placed upon the negative pole and the ion traveling figuratively "*ana*," or upward, to the positive pole.

HERBERT MCINTOSH.

Boston, Mass.

PUERPERAL ECLAMPSIA: A CRITICISM

It was good of you, Mr. Editor, to let Dr. L. S. Holmes down so easy in your criticism of his ideas of the treatment of postpartum eclampsia. (See page 79, January CLINICAL MEDICINE.) It was read with interest, and now I just *have* to say something.

Dr. Holmes refers to the infrequency of postpartum eclampsia. It would seem that it is not a rare variety of eclampsia, by any means. Authors give the percentage of frequency at from 14 to 45 percent of all cases of eclampsia. No one is competent, I believe, to judge from his private work as to the relative frequency of the postpartum variety of eclampsia. In my own work

*Is it not more likely that the term was intended to denote a carrying "down into the flesh"?—Ed.

there has been a percentage of 90 of the postpartum variety.

Had I sufficient confidence in this pen of mine I should like to enter largely into a discussion of this subject, for my ideas are positive and vigorous, but I am afraid of the editor. Say, he must be a terrible fellow!

Dr. Holmes did well, but he was too slow about it. Let the following case illustrate some of my ideas of the treatment of this condition:

Mrs. L., age 24, was attended in her second confinement by a midwife. Two hours later I was called to the case, with the statement that the patient had had a convulsion. As I entered the room the woman had a most violent convulsion that was but poorly relieved with chloroform. I gave at once a one-and-one-half standard dose of the hyoscine and morphine combination. During the next forty minutes she had four very violent convulsions, being completely comatose from the time of the first one. Chloroform was given to control the attacks until the hypodermic had time to take effect. In an hour the condition of affairs indicated to me that she was fairly under the influence of the hyoscine and morphine and probably free from the danger of further convulsions if we could *do* something by the time the effect of these drugs had passed.

The patient then was given 10 grains of calomel (put the calomel in a lump of butter, on the end of a table-knife, draw out the tongue and deposit it away back on the tongue). At the end of another hour we began with rochelle salt, in teaspoonful doses, in saturated solution, every fifteen minutes until one and a-half ounces had been given. The hot-pack, enemas, etc., were not forgotten.

Do not get the idea that the hyoscine-morphine compound in any way interferes with elimination. It does not—not if you manage right. The woman had no more convulsions. Why? Why, man alive! she couldn't with all that hypodermic sedative to contend with. And, mind you, before ever it was gone elimination had begun to

such a degree that she was in little further danger.

Postpartum eclampsia is the least-dangerous form of this disease that we have to deal with, but this patient had started in to die and nothing but the most vigorous persuasion could get her out of the notion. Inquiry elicited the fact that she had had all the premonitory symptoms of eclampsia for at least six weeks. It took about three months of eliminative and reconstructive treatment to relieve the albuminuria, while some permanent damage remains to the eyes.

It is not claimed that the treatment of the case as outlined above is adaptable to all cases, for each must be judged and treated according to its merits. I am, however, of the positive opinion that the hyoscine-morphine combination is one of the very best things we have to meet and control that fearful condition known as puerperal convulsions, until such time as we can get control of elimination and other eliminants of the case that render the patient safe. Don't get me started about its use in the antipartum case or I shall never stop.

One other matter. Do not get the idea that the work is done when the convulsions are under control. Permit me to suggest that some of the writers who favor us in CLINICAL MEDICINE get to work and teach us something about what we should do during the weeks or months that it frequently requires to remove all of the evil after-effects of an attack of eclampsia.

JAS. H. BRISTOW.

Portland, Ore.

[Afraid of the editor! Ye gods! We are afraid of our contributors! If we become lax in our duties, fall short of wholesome criticism, are indiscriminating in our praise, or overlook some palpable point, they pounce down upon us from Florida to Oregon. Here is a case in point. We have received several letters criticising Dr. Holmes' management of this case, and sailing into us because we did not point out more strongly his shortcomings. We

print enough to show the drift of the arguments presented.

Eclampsia is an important subject, one which we shall be glad to have discussed. as Dr. Bristow suggests. Dr. Rittenhouse, who is contributing a series on "Every-Day Obstetrics," will make it the subject of one of his papers. After that has appeared it will be a favorable time to "open up." Meanwhile—be thinking it over.—ED.]

REGARDING A CASE OF POSTPARTUM ECLAMPSIA

On pages 79 and 80 of the January CLINICAL MEDICINE a case of eclampsia is reported that seems to call forth some congratulations. Yes, indeed, Dr. Holmes is to be congratulated on the recovery of his patient; the next one will die, and the next and next, and so on *ad inf.*, unless they all have wonderful constitutions. "Gave a hypodermic of morphine, gr. 1-8, this to be repeated every half hour until I came back. I also left some chloroform and mask, explaining how to use it if necessary." Then he goes to his office, two miles away, to sleep!

According to his statement, he left his patient four times. It has been my misfortune to have attended some few of these cases and I know that this is one of the few times when the physician is needed *on the spot* and he can be just as busy all the time as he cares to be. For the attendant to leave before the patient is out of danger, suggests to me a sin of omission that it would take a multitude of virtues to balance. I take it that that family must have been experienced in giving chloroform, hypodermics, etc., or that the doctor could explain to them the indications for their use, such as it takes us three or four years on the "benches" to learn.

In the six cases that I have treated, I am sure that the use of morphine would have resulted fatally in any one of them. Elimination has been the keynote in my treatment. Hot-pack, enema, cathartic, veratrum and blood-letting. There may be

cases when morphine is indicated, and then, and then only, it should be used.

Mr. Editor, your journal is very widely read by a goodly number of us younger members of the profession and I do not want the boys to get it into their heads that the way to treat a case of eclampsia is to give a hypodermic injection every time the patient gets lively.

ROSS A. SWITZER.

McHenry, Miss.

[Dr. Holmes is certainly getting his share of criticism—also the "Ed." because he was not more liberal with his. All of which shows that the "family" are thoroughly alive and that it's pretty hard to get any error of omission or commission into our pages in a place where it will be "immune." Like Dr. Switzer we disapprove of morphine in eclampsia (the hyoscine-morphine treatment deserves trial), pinning our faith largely to veratrine—which we urge you to try!—ED.]

ANTI-DISPENSING LEGISLATION

We have just received from one of our Massachusetts friends, a copy of a bill introduced into the Massachusetts legislature January 14. This is known as House Bill 163 and has been referred to the Committee on Public Health.

This is a sample of the pernicious restrictive legislation to which it is proposed to submit the doctor. We want to urge again with all the energy and power within us, that physicians throughout the country shall be alive to this danger and be prepared to meet it. We have no doubt that bills of this kind are being introduced in a number of states; indeed, we know that such legislation is already being initiated in one or two, notably in Oklahoma, where a bill has been introduced in the legislature (House Bill 31) entitled "An act to permit registered physicians to dispense their own medicines in towns where there is no registered pharmacist." The inference is that in all other towns dispensing by the physician is to be forbidden by law! However, in no other place is there such a sweeping effort

to "do" the doctor as there is in the Massachusetts bill, which we are printing below:

AN ACT RELATIVE TO PHYSICIANS

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. It shall be unlawful for any physician to compound or dispense any medicine intended for the use of any human being, unless such physician is a duly qualified pharmacist under the law of this state, except in cases of emergency; and all medicines compounded or dispensed in such cases of emergency shall be administered by such physician in person or under his immediate direction; and a record of such compounding or dispensing or both, as the case may be, of such medicine, specifying the date and the ingredients and the quantities thereof, and the name and address of the person for whom compounded or dispensed shall be made by said physician and recorded with ink in a suitable book to be kept by said physician. Said record shall be entered upon said book by said physician within twenty-four hours after the delivery of said medicine or the administration of any part thereof to the patient. Said record shall be preserved by said physician for the period of at least one year and shall be open to the inspection of the patient to whom such medicine was administered, and to the inspection of the husband or wife or any parent or child or such person, or to the duly authorized attorney of any such person or persons.

In all cases of emergency as hereinbefore specified, or where the physician shall be also a registered pharmacist, when the physician shall have compounded or dispensed the medicine administered to the patient, and the patient shall die five days after the administration of said medicine, it shall be the duty of the health officer or the board of health of the city, town or county in which said death shall have occurred to ascertain and certify the cause of such death and said certificate made by the said health officer or board of health, as the case may be, shall be immediately deposited in the office of the said health officer or board of health, and shall be a public record and be permanently retained on file in such office.

SECTION 2. It shall be unlawful for any physician to collect or receive from any druggist or pharmacist, either directly or indirectly, any commission or percentage upon or any compensation for or on account of any prescription or prescriptions for drugs or medicine written by said physician, or sent, or directed to be sent, by him to said druggist or pharmacist.

SECTION 3. It shall be unlawful for any physician to recommend his patient or patients to any druggist or pharmacist, directly or indirectly, or to write, or cause to write recipes or prescriptions upon paper bearing any druggist's or pharmacist's business card or label or any part thereof.

SECTION 4. It shall be unlawful for any physician to order for any patient or patients, to leave with or send to any druggist or pharmacist, recipes or prescriptions, unless so ordered by the patient or patients, his or her relatives, or nurse in attendance.

SECTION 5. Any person violating any of the provisions of this law shall be punished for the first offense by a fine of not less than twenty-five dollars and for the second offense by a fine of not less than one hundred dollars, and for the third offense by a fine of not more than five hundred dollars, or by imprisonment of ninety days, or both such fine and imprisonment in the discretion of the court.

We have predicted a crop of just such bills as this. There will doubtless be others, if there are not already. We want to ask our readers to keep us advised of what is going on in the various legislatures. The medical profession has a right to know about these things. The interests of all doctors—not merely dispensing doctors—are at stake. Do not forget that the Mann bill, while it is not likely to pass in this congress, is still pending. Keep awake!

DEATH OF DR. BLACKWELL

We are greatly pained to learn of the death of one of our most loyal and best friends, Dr. L. S. Blackwell of Perth Amboy, New Jersey, which occurred on November 18, 1908. Dr. Blackwell has been a frequent contributor to CLINICAL MEDICINE, the last article from his pen appearing in the December number. The sympathies of the entire CLINIC "family" go out to his bereaved wife in this time of affliction.

PICRIC-ACID DRESSINGS

In the January issue I read a letter on the use of picric acid in burns and as I have been using it for some time in all varieties of burns I would like to add my mite. I use an impervious dressing—have the acid solution warm and order dressing kept moist all the time. So far as I can tell there are only two objections to the treatment: first, it certainly stains everything it touches a beautiful yellow, and secondly, the burns do so nicely and are so easy to dress, that when the case is about two-thirds cured, the patients usually kindly inform me that they feel competent to finish it themselves. To tell the truth the patient does get well; at least, I have never been called to help out in any difficulties.

Will someone inform me how to get "more dollars for the doctor" in a case of this kind.

J. F. LEWIS.

Depue, Ill.

[There are "more dollars for the doctor" in work of this kind because it brings more cases to the doctor. That's easy!—ED.]

TREATMENT OF INTERSTITIAL GINGIVITIS

Fifteen years' continuous study of inflammation of the gums and pericementum and absorption of the alveolar process have resulted in a line of rational treatment based on scientific methods. Researches have shown that, both in animals and man, evolution—due to environment and disease under the law of economy of growth, or use and disuse of structures—is the foundation. If the law of evolution could be reversed and our progeny educated to return to primitive methods of using the jaws in mastication, this disease, as well as deformities of the jaws, irregularities of the teeth and tooth-decay would be far less prevalent. To accomplish this would require special training and selection. Generations of persistent effort would be necessary to carry out this reform before the ideal race could be produced. In the meantime we must meet these conditions as we find them, and how best to accomplish this demands the attention of investigators.

It has been demonstrated many times that interstitial gingivitis is due to both constitutional and local causes. In the treatment of constitutional interstitial gingivitis, it must be borne in mind that the patient always has a tendency to other grave disorders, the symptoms of which can be easily determined and which, if allowed to remain, will eventually produce disastrous results.

The accumulation of waste products not properly eliminated and circulating in the blood-stream interferes materially with metabolism, and self-poisoning or auto-intoxication is the inevitable result.

These various poisonous substances have in some cases been accumulating in the blood and tissues for years, and it becomes very necessary not only to demonstrate their presence, but in some way to estimate the amount of poisonous material in the blood, so that we may have some guide as to the persistence required in administering the proper method of treatment. At present the only method of locating these poisons is the examination of the urine, and the definite indications are excessive urinary acidity and indicanuria.

When a patient presents himself suffering from interstitial gingivitis, first inquire carefully into his history, viz.: his family—married or single; habits—sedentary or otherwise; diet—use of stimulating foods and drinks; hereditary factors—if any; general health—as to pain in joints, muscles, headache, rheumatism, asthma, constipation, kidney, liver or venereal disorders, tuberculosis, stomach disorders, etc. An intelligent digestion of the data elicited will give a definite idea as to the line of treatment.

Have the patient save the urine voided during twenty-four hours—this must be measured to ascertain the quantity passed in twenty-four hours. Examine this for the degree of acidity and indican only, if the patient is under thirty years of age. The average dentist can easily do this. If the patient is above thirty it is advisable to have a thorough urinary examination made by some medical laboratory to ascertain in addition if albumin, sugar, pus, blood, or casts are present. If such conditions are present, the patient should be informed and recommended to a physician. If the urinary acidity is high—above forty degrees—and indican is present, they should be gradually reduced to the normal (30° to 40°) by the use of suitable alkaline remedies and intestinal antiseptics.

During the past twelve years I have done considerable experimenting along these lines. The following formula, after some minor changes, has finally been adopted, having given constant satisfaction. This combination has proved to be of such value that I

am now giving it to the profession. Each teaspoonful (60 grains) contains:

■ Sodium bicarbonate	grs. 40
■ Sodium sulphate	grs. 10
■ Sodium sulphocarbolate ...	grs. 5
■ Colchicine	gr. 1-250
■ Juglandin	gr. 1-3
■ Xanthoxilin	gr. 1-3
■ Aromatics, q. s.	

One-half to one teaspoonful should be given in a glass of hot or warm water one-half to one hour before meals. This preparation will rapidly diminish a high urinary acidity, and reduce a urine abundant in indican to the normal. If the urinary acidity is below thirty degrees, and less than forty-eight ounces of urine are passed in twenty-four hours, the patient should increase the amount of water taken in twenty-four hours. The normal amount of liquids in twenty-four hours should equal ten to twenty glasses of pure water. A second uranalysis for acidity and indican after two or three weeks will indicate the result of the treatment.

tion, glycerin is an excellent medium, and to further increase its usefulness, zinc iodide has been added. The following solution applied locally upon the gums twice per week will be of great benefit:

Iodoglycerole (Talbot)

Zinc iodide.....	Gms. 15
Water	Gms. 10
Iodine.....	Gms. 25
Glycerin	Gms. 50

This will make about two fluid ounces. The use of a tooth-powder or paste to which has been added a small amount of C. P. zinc sulphocarbolate rubbed into the gums with the gum-massage brush is of value. Severe cases seem to progress more rapidly when the mouth is rinsed four or five times a day with fifteen percent. zinc sulphocarbolate.

Since disuse of the structures is a factor in this disease, constant friction is necessary, and a gum-massage brush—not a tooth-brush—should be used to stimulate the gums.



The gum-massage brush advised by Dr. Talbot

The orthodox local treatment of removing all irritation must be thorough. Pyorrhea alveolaris (pus infection) cannot be present without there first being an interstitial gingivitis. Remove the interstitial gingivitis, and the pyorrhea alveolaris will take care of itself. To reduce the inflammation and to restore the gums and the alveolar process to a normal condition requires more than the mere application of drugs to the surface of the gums. The inflammation, being deep-seated, requires the application of some drug that will penetrate into the alveolar process as well as the gum tissue and reach the arterial system in the bone. No preparation will accomplish this as well as iodine. To further improve the power of absorp-

In 1886 I commenced a systematic study of brushes for gum-massage purposes. After eight years of experimentation, while studying the etiology of the disease, I succeeded in producing a gum-massage brush which has given splendid satisfaction. The bristles of the brush should be unbleached and should be made of two grades, medium and hard. Two brushes should be used, one every other day, to allow the bristles to become thoroughly dry. A soft tooth-brush is of no value and should never be used, since the desired results cannot be obtained with it.

A gum wash, to be used with the gum massage for the purpose of stimulating and contracting the gums and also for destroy-

ing the bacteria in the mouth, is composed of the following:

Zinc sulphocarbolate . . .	5 percent
Alcohol	30 percent
Water	65 percent
Oil of wintergreen, q. s.	

I have obtained good results in those cases of long standing where the disease has been allowed to progress until the teeth have slightly loosened, especially if the patients are young, by placing them on whole-wheat or rye bread, requiring them to masticate thoroughly, thus in a measure restoring the law of use where disuse of structures formerly prevailed. While the treatment is proceeding the patient's diet and habits must be properly regulated so as to prevent the further formation of an excess of acids and indican in the system.

EUGENE S. TALBOT.

Chicago, Ill.

[This article, which we reprint from *The Dental Cosmos*, is of importance to doctors as well as dentists. Not only is interstitial gingivitis an intractable, disfiguring disease of the mouth, but we now believe it to be associated with other and even more important systemic disease-states, due to hyperacidity and relieved by Dr. Talbot's treatment. Follow this up.—Ed.]

MENINGITIS: DISCUSSION WANTED

I have had a number of cases of meningitis during the past two or three years. I believe that early diagnosis is very important; however, I have as yet found no treatment that appeared to make a favorable impression on this affection when the patient is past middle age. Many of these cases seemed, for several days, to be only mild cases of grip. Later these patients begin to show signs of brain and spinal trouble. They die, under convulsions. The points I should be greatly interested in are diagnostic symptoms early in the case, pathology and treatment (this, of course, to be based on the pathology).

There are as a rule in those of advanced age no special indications for active treat-

ment. The patient will tell you that he is not much sick, and frequently he even seems to be feeling quite well, laughing and joking. But on close inspection, in a few days, I notice one eyelid will not be more than half open or sometimes one eye only is open. This I find to be a positive symptom of meningitis. This period of feeling well usually is followed by a like period of sulkiness and the patient is very crabbed. He seems to be half the time in a state of mental excitement followed by a like period of great depression. No fever except an occasional light attack. The patient usually sleeps well. He does not complain of pain in the head or back, but generally experiences great difficulty of swallowing. This commonly is an early symptom.

My last patient died Dec. 10, a man 75 years of age. I saw him the last day of August. He was not sick but had difficulty in swallowing and an unsteady gait. None of the treatment instituted did any good and he died of exhaustion. This will give an idea as to the difficulties that I should like to have discussed. I will state that while having these peculiar cases in advanced life, I had a number of cases of well-defined meningitis in children and young people, some of whom recovered.

F. W. OWEN.

Lamasco, Tex.

[We place the subject in the hands of the readers of *CLINICAL MEDICINE*. Let us have such a discussion as Dr. Owen suggests. The "cabinet" will gladly participate.—Ed.]

HERPES ZOSTER: AN UNUSUAL CASE

Recently I had a patient, a married woman thirty-five years old, who complained of a sharp pain in the right side just below McBurney's point. When I was called the patient gave a history of feeling well the day before, and the night before took a hot bath just before retiring. In the night she was taken with severe pain across the abdomen and had diarrhea. It was just about time for her to menstruate and the region near the ovaries was very sensitive and there

was tenderness and pain over the appendix, which extended around the side to the spinal column.

I found the temperature at 100°F, and from the condition of the patient thought all the symptoms were caused by delayed menstruation. I had heat applied over the lower part of the abdomen and ordered the patient to remain quiet and in bed. Internally I gave macrotys, bryonia and aconite, also one intestinal-antiseptic (sulphocarbolates) tablet every three hours until the diarrhea was checked.

The next day I found the pain nearly all gone, temperature 98.6°F., bowels and kidneys acting naturally. There was still the tenderness extending around the right side, and menstruation just starting. The following day the temperature was normal and menstruation quite free, pain and tenderness much less. The patient was sitting up and said she was feeling about well.

I did not go again until six days later, when I was called and found a well-developed case of herpes zoster, which extended from the spine obliquely downward across McBurney's point and over the right ovary. The right inguinal gland was also much enlarged. I have never had a case of herpes zoster in this location and was quite surprised when it appeared. One could have very easily called it a case of appendicitis or ovarian trouble, and possibly have operated. This may be very common, but why should it appear in this location and just before or during menstruation?

H. G. PALMER.

Detroit, Mich.

UNITY VS. NONUNITY OF DRUG ACTION

It would appear as though Dr. T. J. Mays and I are diametrically opposed upon this point, but I would express my admiration for the courtesy with which he indicates that difference in a late issue under the heading, "Nonunity of Drug-action" (p. 1592), December CLINICAL MEDICINE.

It appears as though the difference between us resolves itself into a question of the meaning of words and is only another

example of the not infrequent inefficiency of the English language for communicating shades of meaning.

Dr. Mays limits his attention to stimulants and I will also. He confines himself to the definition, "Stimulation implies a process which enhances healthy action." He is unable to see any meaning in the word overstimulation, which I have used, because "an organ may be stimulated to its utmost physiologic or healthy capacity, but to say that it may be stimulated beyond this point, or over-stimulated, would be equivalent to saying that you can stimulate an organ to over-health, which is meaningless."

Webster says, to stimulate is literally to prick or goad. A horse is goaded until he falls dead in the harness or under the saddle, and if I say his condition is due to his being over-driven, my statement is meaningless. The ultrascientific might agree to this, but most ordinary mortals would understand that the whip and spur had acted as stimulants, and stimulants only, and that the death of the horse was due to an overdose of these stimulants, or overstimulation.

I agree with Dr. Mays that every drug has more than one effect, but hold it has but one *action*. If a drug is a stimulant, it is always a stimulant, when it acts at all.

I believe that it is an error to claim several *actions* (stimulation, depression, etc.) for the same drug. But Dr. Mays does this, and I submit that when he says the difference between him and me "is not so much a question as to whether drugs in varying doses have two, three, four or more different kinds of *action* or *effects*, as it is of getting away from the old idea that they have only one action," he appears, notwithstanding his remarkable acumen, unable to differentiate between the *action* of a drug and the *result* of that action—the *effect*. That when he says, "Judged therefore by its *effects*, as all drugs must be, strychnine is clearly demonstrated to have at least three different kinds of action," he merely reiterates the error.

The horse being dead and the man's nerve-center paralyzed, the whip, spur and

strychnine cannot act at all, any more than they would if applied to a saw-log. But they are still stimulants and the *effects* of the *action* of these stimulants remain.

Surely, Dr. Mays will not claim that a fire burning beneath a boiler of water has as many *actions* as there are *effects* of its one action, which is to generate steam. The *effects* may be anything from sounding a whistle to the explosion of the boiler. At first glance the point may seem a fine one, but clearer language in describing the action of drugs is much needed and of vast importance as a means of increasing the efficiency of the profession, as pointed out in the paper criticised by Dr. Mays.

GEO. M. AYLESWORTH.

Collingwood, Canada.

SAGEBRUSH PHILOSOPHY

"Live, laugh and love;
There'll come a time when you can't.

That's not bad—in fact, we think it mighty good; also, that the following "believes" hammer the iron on the right end.

In the Gospel of Sunshine, the which includes hope and happiness while here. The mummy ain't had no fun for moren five thousand years.

In a Supreme Being who is too busy to always take notice—who expects you and I to do the right thing but who, like you and I, can forgive and forget.

In a hell on earth; in a heaven if it happens, from which nobody will be absolutely barred.

In honesty and industry and decency; in a charity not altogether monetary; in a Christianity which don't have to holler.

In the use of words to express thought, sincerity of purpose and belief.

In the enjoyment of this life to the full of opportunity and environment; in laughter which feeds the red corpuscle; in love for all inanimate and animate nature, including each other.

In the shrine of sex and the divinity of desire; in love's confessional whose secrets are sacred; in the man and the woman created in God's image.

In courtesy and kindness, which of necessity comprises the occasional use of a club.

In a tomorrow; but am not cocksure. Today I will bet on.

In social, mental and spiritual freedom.

—And maybe a few other things.

Thus sayeth Bill Barlow, editor of *The Sagebrush Philosopher*, Douglas, Wyoming—this along with many other things as good

or better (if not worse) in a recent issue of his little monthly.

Brother Bill didn't inspire this item in CLINICAL MEDICINE. He does not even know that it is being done. He will likely never hear of it unless some of our many Wyoming brother-doctors bring it to his attention or you send him a dollar for twelve issues of *The Sagebrush Philosopher*. Nevertheless, it's done as a tribute to a live wire and you are none the worse for having read this much.

THE TREATMENT OF CARBUNCLE

When I find a case of carbuncle I investigate it just as I would any other ailment, correcting morbid conditions, both systemic and organic, by the use of proper remedies. "Clean out, clean up, and keep clean" is the motto. While doing this, saturate with calcium sulphide, and apply to the carbuncle a saturated solution of menthol compound—at least 4 tablets to 1 pint of water. Patients compare it to pouring water on a fiery coal. The pain is relieved immediately and does not return, and that is the desideratum with the patient. That's all.

With a little common sense, a good supply of the alkaloidal granules and tablets we can control everything controllable readily—but quality of medicine is of great importance.

M. W. C. FRAZIER.

Carrizo Springs, Tex.

MALARIA CURED

If you will look in your files of a week or ten days ago you will find a communication from me asking about the treatment for a certain case of malaria. I followed your suggestions and yesterday I discharged the patient cured. I use the alkaloids almost exclusively: results are most highly gratifying. The only trouble I see, Doctor, is that I can't hold my patients long enough to run up a bill of any consequence.

L. D. S.

—, Illinois.



CLINICAL · MEDICINE POST-GRADUATE SCHOOL of THERAPEUTICS

George F. Butler, M. D., Director
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PART TWO—LESSON THREE

INNERVATION (Continued)

HYPNOTICS (Continued)

Soporifics and Hypnotics are substances which merely cause sleep, from which the patient can be readily awakened by external stimuli, instead of producing complete unconsciousness, in which the most powerful stimuli are absolutely unfelt. Many substances produce sleep in the earlier stages of their action, and anesthesia when their action is pushed to a further extent. There are also some drugs which tend to produce sleep, but will hardly act as anesthetics. Before we pass to the drugs that are used as soporifics, it is advisable first to consider briefly the physiology of sleep.

Insomnia.—Sleeplessness is one of the most troublesome ailments which medical practitioners are called upon to treat. It is annoying to the patient, to how great an extent only those who suffer from it can appreciate; it is troublesome to the practitioner from its frequently intractable character.

Much, however, of the difficulty of treating insomnia satisfactorily lies in the complex associations of the malady. The measures which will readily procure sleep under one set of circumstances may fail when employed under other conditions; and yet the causes of such failure often re-

main undiscovered because they are not studiously sought for. In order to render the subject more intelligible it is well to glance at the physiology of sleep, and then to proceed to review the different forms of insomnia, with the form of treatment appropriate to each.

Physiology of Sleep.—Sleep is a condition of physiologic cerebral anemia. At one time it was thought that sleep was connected with a state of vascular congestion of the brain. This view took its origin in the congested condition observed after lethal doses of opium. True, in such fatal cases there is marked venous congestion of the brain; but, on the other hand, the condition preceding death here is coma ending in death, and not normal sleep.

Experiments have placed beyond doubt the relation of sleep to cerebral anemia. Such conclusion might have been anticipated from the physiologic law, that the functional activity of an organ is in direct proportion to its blood supply. This condition of anemia is produced by the cooperation of two factors: one, a modification of the vascular system; the other a diminution of activity in the cerebral cells themselves. It is the combination of these two factors in the production of sleep that must ever

be borne in mind in the treatment of each case of insomnia. According to the predominance of one or the other of these factors must the remedial measures be selected and proportioned, if they are to be successful. The measures which would be most appropriate to the relief of insomnia in convalescence after a fever would be most unsuitable in the sleeplessness of gout.

Cold as a Cause of Insomnia.—It will perhaps be well to take the simpler forms of insomnia first, and then proceed to the more complex. With many persons sleep is unattainable if their feet are cold. This condition, depending upon the contraction of the arterioles of the lower limbs, is not confined to these, although, of course, it is more pronounced there. It affects a large portion of the vessels of the body and by thus, as it were, driving the blood to the head, keeps up a condition of arterial vascularity in the brain which effectually prevents sleep. Here the warming of the feet often is sufficient to permit sleep without any resort to hypnotics.

To warm the feet many resort to hot bottles; but a much more effectual method, especially with young persons, is to put the feet in cold water for a few moments and then to rub them well with a rough towel until they feel warm. If this be done before getting into bed, that coldness of the feet which is so inimical to sleep will ordinarily disappear.

Chilliness is often the cause of insomnia. If insufficiently clad, the cutaneous vessels are not relaxed, and then sleep rarely is sound, when attained at all. It is only when stupefaction from extreme cold occurs that the dangerous coma-sleep supervenes and which so often proves fatal. With many persons sleep is impossible if the bed is not warmed previous to their entering it. In these cases the arteriole contraction induced by the contact with the cold bed-clothes does not pass readily into the opposite condition of relaxation, and so sleep does not come on. This state of affairs is very commonly met with among the aged, and most so in those who suffer from some form of heart disease. In such

cases it is not only desirable to warm the bed and the night-clothes but even to administer some hot fluid, all the better for containing alcohol, after the patient has got into bed, if any sense of chilliness remains.

In the young and healthy the chill on getting into bed, however, is often of great service in inducing a subsequent relaxation of the cutaneous vessels and thus conducing to more perfect cerebral anemia and sounder sleep. Few persons will have failed to note the deep and usually refreshing sleep which follows any disturbance during the night that has exposed them briefly to cold. Getting up to do some little service for some sick person, or for any other small cause, usually will occasion a sense of chilliness that makes the warm bed-clothes feel extremely comfortable on again getting into bed and which is followed by sound sleep. Here a brief contraction of the peripheral vessels is followed by relaxation leading to more complete cerebral anemia.

Insomnia Caused by High Temperature.—At other times an increase of the body-temperature is the cause of disturbed sleep sometimes amounting to sleeplessness. This is most frequently seen in febrile states, where a delirious condition takes the place of natural sleep. After the temperature has been brought down by cooling applications, a fever-patient commonly will fall into a refreshing sleep until a return to a fever temperature again disturbs it. In slighter conditions of restlessness, associated with too great a body-temperature the dissipation of a certain amount of superfluous heat by getting out of bed and drinking a glass of cold water will usually be followed by sound sleep. At other times, throwing off some of the bed-clothes achieves the same end; although, if the amount removed be too great, wakefulness may follow from a resulting too low temperature. With some persons, when their rest is disturbed, it is sufficient merely to protrude an arm or a leg from under the bedclothes, so as to secure a greater loss of heat.

Cerebral Vascularity as a Cause.—Not infrequently sleeplessness is due to a

condition of high cerebral vascularity, accompanied by excitement in the circulation generally. This associated condition may be due to inflammation somewhere, which sets up the vascular excitement of inflammatory conditions together with excitement in the cerebral cells produced by the sensation of pain received by them. Or it may be due to an inflammatory condition in the brain itself; also to a condition of high cerebral vascularity falling short of inflammation, as in the paroxysms of excitement in various forms of insanity or in acute mania. Here there will be found, in varying proportions, (1) local cerebral hyperemia, (2) general vascular excitement, and (3) a rise of temperature.

Treatment of Congestive Insomnia.—

When sleeplessness is present under these circumstances, the treatment must embrace the different factors and include each in the remedial measures employed. Opium alone will not meet these complex states. In order to procure its hypnotic effects, it is necessary to combine it with a direct vascular depressant. The rule laid down by Graves for the administration of *opium* in excitement and serious delirium was to combine it with *antimony*. Each drug seems to assist the action of the associated one, while the relative dosage must be determined by the circumstances of the case.

In furious delirium the *tartar emetic* must be given in full, the opium however in small quantities; while if wakefulness is the chief symptom, the delirium not being very boisterous, the dose of tartar emetic must be reduced and the opium increased. When the condition of wakefulness is little if at all associated with general vascular excitement, opium alone is sufficient to produce quiescence in the cerebral cells. When, however, there is much excitement in the circulation in connection with the insomnia, then a direct vascular depressant is needed to calm the vascular elements in the insomnia. At the same time the antimony affected the body temperature. The measures employed stuck at each and all of the factors of the sleepless condition. In these days we have *chloral* and other remedies of

this class which combine the actions necessary for the relief of such form of insomnia. They act upon the nervous system, lessen the heart's action and lower temperature. But if thus suitable for one form of sleeplessness, the very qualities which here render them so valuable constitute objections to their use in other forms of insomnia.

Influence of Pain and Pyrexia.—There are some points to be noted in connection with the relation of sleeplessness to pain and pyrexia deserving of attention.

Pain, in the first place, excites the cells of the sensorium, and such activity causes them to attract more blood to themselves, by which their activity is maintained. That, however, is not all. Pain has a stimulant effect upon the circulation, and causes a rise of blood-pressure in the vessels of the body generally, including those within the cranium. If pain is not too excessive, it does not induce shock; indeed, the pulse will be found to be fuller and less compressible, while its beat is slower, during pain. The effect of the pain is often to improve the pulse, which becomes slower and fuller under the stimulus. In conditions of severe pain accompanied by vascular excitement, opium should be combined with a direct depressant as morphine and aconitine, antimony or chloral, in order to overcome successfully the resultant insomnia. *Morphine* will diminish the receptivity of the cerebral cells, but, alone, it is not sufficiently depressant to effect the circulation.

Heat is the most powerful excitant of the heart's action, and conditions of pyrexia are ever accompanied by an elevation in the number of pulse-beats in the minute. Such stimulation of the heart causes an abnormal amount of blood to be pumped into the arteries, and this arterial fulness is hostile to sleep. The effects of a too high temperature in disturbing sleep already has been alluded to, as well as the fact that lowering the body-temperature induces sleep.

In conditions of *pyrexia without pain*, opium alone is unsatisfactory as a hypnotic, being here far inferior to chloral. Indeed in the treatment of sleeplessness due to too high body-temperature apyretics are dis-

tinctly called for; it may not be amiss to combine them with the ordinary soporifics, but they constitute the treatment, essentially.

All powerful impressions made upon sensory nerves not only excite the sensorium, but they raise the blood-pressure. This holds good of sensations received by nerves of special sense as well as by those of general sensation. The eyes are closed in sleep, and the cutting off of the stimulant sensations, coming in by the optic nerve, conduces powerfully to that result. Conversely, on awaking, the eyes are opened and the inrush of sensations caused thereby produces a more active state of wakefulness. If the eyes are kept closed when one is half-awake, sleep returns more readily than it will when they are opened full. Similarly, if the eyes are opened in the dark, less stimulation is experienced than occurs when the eyes are opened in the daylight.

Insomnia of Lithemia.—Sleeplessness is a common symptom of lithiasis, or suppressed gout. The patients complain that they cannot get off to sleep. It is not pain that keeps them awake, they cannot "catch sleep," to use the expression they commonly resort to. Their thoughts travel in a circle, and the process is tiresome, and barren of result, and tends to keep up the feeling of irritation experienced. When morning is far advanced sleep finally comes on, but it is brief and the sufferer awakes weary and unrefreshed. Here the cause of sleeplessness is almost entirely due to high blood-pressure, although probably the effect of nitrogenized waste upon the cerebral cells is of a stimulant nature. This high blood-pressure is due to the action upon the circulation of the effete matter present in excess and of which the accentuated second sound, the incompressible pulse and the free flow of urine are witnesses. In sleeplessness occurring under these circumstances morphine not only is useless but very commonly harmful. This is true also of any of the alkaloids or preparations of opium, as they increase the excitement instead of allaying it.

Chloral often is useful, in some gouty persons acting like a charm, although with

others it disagrees. *Potassium bromide* is serviceable here and may be advantageously combined with *hyoscine*. This latter combination may be taken at bedtime in insomnia of this nature, but a course of alkaline treatment, such as can be had by the free use of sodium bicarbonate combined with suitable adjuncts, and a nonnitrogenous diet is most desirable. The elimination of the already existing uric acid and other acid waste-products by such remedial measures and the arrest of their further production by a suitable dietary will be found most effective in the alleviation of the sleeplessness of the lithemic—a sleeplessness which is very intractable to ordinary hypnotic measures.

There seems much reason to suppose that the persistent insomnia of the more affluent classes, which impels them to resort to the most powerful hypnotics in order to produce sleep, has in it an element of gout which is not recognized and which thwarts the measures ordinarily effective and operative; so that remedies of unwonted potency or in unusual doses are necessary to secure sleep or rather unconsciousness.

Insomnia Arising from Cerebral Anemia.—A totally different form of sleeplessness is associated with cerebral anemia. Here there is sleepiness felt during the day, especially when the upright posture is assumed; but at night on lying down, instead of the inclination to slumber becoming more pronounced, a state of wakefulness is the rule. Hammond explains this on the supposition that the brain is anemic and consequently lethargic, when the head is the highest point in the organism and consequently the blood falls away into the unfilled vessels by the force of gravity; but that, when the horizontal posture is assumed, the head ceases to be the highest point and so the blood returns to it, fills the intracranial vessels, and a state of wakefulness is induced. These patients could sleep while going about their duties during the day, but they cannot sleep on lying down at night.

Such a condition is found in a pronounced form in melancholics. It has been found that in such patients ∇ potassium bromide

or chloral, however effective in procuring sleep, are unsuitable and indeed mischievous from their tendency to aggravate the condition of anemia. When administered to the convalescent melancholic they retard recovery, and when given in the earlier stages tend to produce still further "brain starving," and to transfer the condition from one of temporary melancholia to the more advanced and permanent condition of chronic dementia.

Hence the narcotics named, viz., chloral and bromides, should *not* be used in these conditions, but rather, although very guardedly, *alcohol* and *opium*. These latter agents first dilate the cerebral vessels before producing contraction, and so relieve the condition of gloom ere the patient falls asleep. Nor is the condition of cerebral anemia induced by them so persistent and mischievous in its after-consequences as that produced by chloral and the bromides. In the sleeplessness of cerebral anemia, alcohol and opium, or its alkaloids, may be given alone or combined at bedtime for the purpose of producing sleep; but their administration must be accompanied by a generous and liberal dietary and by the administration of the arsenates of iron, quinine and strychnine. Remember the danger of morphine habit. By such means the brain recovers its normal vascularity and the sleepiness of the days and the sleeplessness of nights are exchanged.

In order to give tone to the unfilled vessels, digitalin may often be given with advantage along with the triple arsenates. There is nothing inconsistent about the use of quinine in these circumstances.

Insomnia of Passive Hyperemia.—Sleeplessness is a consequence of cerebral hyperemia. We have already considered its association with conditions of active hyperemia accompanied by general vascular excitement, and the appropriate measures for its treatment. There is, however, another form of cerebral hyperemia in which insomnia is a prominent feature. This is a form of passive hyperemia from partial vasomotor paralysis of the intracranial blood-vessels.

Passive cerebral hyperemia usually is associated with mental overwork. It is a condition in which the mental disturbance is so great that it simulates melancholia or mania. There is restlessness, anxiety, a general sense of dread, and such patients cannot stay long in one place, but go about restlessly, worried, and conscience-stricken about trifles. This last is a very significant statement, and throws a light upon some unfortunate actions otherwise apparently inexplicable. In such cases the sleeplessness is almost absolute; opiates have no effect, or, after the administration of this remedy—which is injurious and dangerous to the patient—there is a short restless sleep, from which the patient awakes with all the symptoms increased.

In such conditions it is obvious that a line of treatment to be pursued is one that will rest and soothe the excited and irritable brain, and in doing so, embrace the condition of the blood-vessels, an important factor in the malady. That a brain overtaxed and approaching exhaustion should show great irritability is in strict accord with what we know of the symptoms of commencing nerve exhaustion. That the wearied brain should become hypersensitive about trifles is also in unison with our experience, and that the mental symptoms—a morbidly exacting conscience—should manifest itself is what we may readily believe.

In such a state the patient is indeed to be pitied, for all causes of pain or trouble are magnified, while the power to bear up against them is lessened. Nor is the suicide which occasionally gives a shock to society unintelligible, when we consider the number of individuals and those who are the most sensitive, who are reduced, more or less pronouncedly, to this pitiable condition.

In estimating the effects of worry, of anxiety, of oversensitiveness upon any individual, we must either overlook or underestimate the peculiarities and capacities of such individual. What may be sufficient utterly to break down one person, may be borne by another with comparative equanim-

ity, or even perhaps with ease. But because such is the case, it does not follow that the burden has not been too great for the patient who succumbs under it.

What the line of treatment to be pursued under these distressing circumstances will be considered next month.

PHYSIOTHERAPY

ELECTROTHERAPY

The *constant*, or *galvanic*, current is by all odds the most effective, best-understood and therefore most useful electrical agency in medicine today. Its action on the animal body is a twofold one.

In the first place, we speak of a physiological action of the galvanic current if the molecules of the part to which the current is applied are thereby disturbed in their position and relation, if their nutrition is increased, diminished or altered, if function is stimulated or depressed. This kind of action covers thermal, magnetic, electrotonic, physical, somatic, mechanical and many other kinds of effects referred to in the textbooks. The salient point is that these effects consist in modes of action that are strictly in accord with the physiological intentions expressed in the activity of organic matter. There is no impairment of structural perfection. The molecule is neither physically incapacitated nor chemically disintegrated. In keeping with these facts, the salient point of these physiological effects might be expressed and emphasized by designating them as *nondestructive*. They affect function by altering structure within physiological limitations.

Another variety of effects would be produced by the action of electrical currents on structure, altering or destroying the latter by disintegrating its chemical constituents or changing the proportion of the latter. These effects would be chemical, or *destructive* in a physiological sense. The electrolytic action of a galvanopuncture would be a *chemical* effect, while the stimulation of the vasomotors by means of a negative static application would be distinctly a *physiological* effect.

Physiological Effects.—The constant current seems to have an affinity for nerve structure. The individual neurons seem to respond gratefully to the gentle and evenly flowing stimulant. In the order of their response to a mild galvanic current the motor nerves seem to react less promptly than the sensory nerves, and these, again, with less precision than the vasomotor (sympathetic, trophic) nerves. The latter show the deep impression which even a comparatively mild galvanic current is capable of producing, by the marked changes in the circulation and in the nutrition of the regions treated.

The electrical tendency is toward the negative pole. Thus there is an overstimulation toward the negative pole and a compensatory understimulation at the positive pole. The vessels dilate near the negative pole, whereas there is a distinct contraction of the arteries at the positive pole.

In keeping with the *physiological law which makes function dependent on nutrition* and, therefore, on circulation, it is but natural to see increased functional activity, augmented metabolism, accelerated oxidation, intensified absorption at the negative side and the opposite state of affairs (sluggishness of functional action) at the positive pole. The decrease in the amount of blood at the positive side lessens blood-pressure. This fact makes the positive pole a sedative and an anodyne of great value.

The increased functional activity at the negative pole soon reaches the physiological limit. The effects of overstimulation become apparent. The skin is red and irritated, the whole region hyperemic and on the verge of an inflammatory action. The trophic nerves have expended their force in response to the current. The physiological effects described explain the subjective symptoms which accompany an application of this kind. The patient experiences a sensation of heat or burning at the negative side while the positive side feels numb.

It is primarily the effect of a mild galvanic current on the trophic nerves, and through these on the blood-vessels and

lymphatics, which accounts for the markedly absorbent action of the galvanic current. This action alone is frequently sufficient to account for the disappearance of hypertrophies, morbid growths and effusions after galvanic applications.

In Giving Galvanic Treatments the current should not be abruptly interrupted unless a special effect is desired. Subjectively a sudden interruption produces an exceedingly disagreeable sensation, especially if the application is made on or near the head or chest. A sudden interruption of the galvanic current acts mechanically on the muscular tissue at and near the seat of application. The muscles contract violently. In asthenic and atrophic conditions of the muscles and in paralytic and paretic states generally, these interruptions of a galvanic current are very effective, especially if they are slowly and rhythmically applied. In these coarse, violent applications the operator can be guided entirely by the mechanical effects produced. At all other times it is advisable to follow the indications of the milliamperemeter.

Mild Galvanization (one to five milliamperes) of a special nerve or set of nerves is one of the neatest and best electrotherapeutic applications, especially if the operator is dealing with a clearly diagnosed condition of functional impairment or of pain. In many so-called reflex conditions the galvanic current is of great value.

Reflex conditions are always due to a lack of balance on the part of portions of the nervous system, a disturbance of co-ordination. A nerve-impulse may travel over a nerve-trunk or through a series of neurons simply by following the path of least resistance. The lack of resistance is a functional ailment of some special nerve-structure. A functional disorder of a nerve is always an indication of malnutrition, usually lack of nutriment or the wrong kind of nutriment. The nerve, as a result, is functionally below par and possesses less than its normal resisting power. This explains the causation of reflex neuroses, of neuralgias and many obscure nervous disorders.

The *vomiting of pregnancy* is a classical type of reflex condition. The impulse is carried by fibers of the solar plexus in response to impressions received by some of the lower abdominal nerve-ganglia. The nerves of the solar plexus are temporarily ill nourished on account of the physiological hyperemia in and near the internal genitalia, and in this way these nerve-fibers present the path of least resistance. In these cases it is of signal service to compensate for the lack of nerve-energy by mild galvanization of the vagus and phrenic (side of neck positive pole, epigastrium negative pole).

In *facial neuralgia*, in fact in all superficial neuralgias, mild galvanization often gives prompt relief. The positive pole should be placed on or near the aching part. The negative pole should be put on some point in the continuity of the nerve or, if practicable, near the spinal origin of the nerve.

In *congestive headaches* good effects are produced by placing the positive (sponge) electrode on the forehead and the negative (sponge) on the back of the neck or lower down, at the same time making firm pressure on either side of the occiput and back of the neck. A mild galvanic current can be thus applied for three to five minutes. To insure good electrical contact, sponge electrodes should always be thoroughly moistened.

General Galvanization by means of a mild galvanic current is valuable in all conditions in which a mild tonic-stimulant is indicated, e. g., *neurasthenia*, wasting diseases, convalescence from continued fevers, etc., etc. The negative electrode is placed over the lumbar vertebrae and slowly moved upward, while the positive electrode is slowly carried over the whole body-surface. The treatment should not last longer than ten minutes. In the atonic form of gastric and *intestinal indigestion* mild galvanization of the abdominal contents is of great value. In all these applications the operator should not carry the treatment to the point of irritation.

It is plain that in many of the conditions to which mild galvanization is applicable, the effect can be enhanced by the discreet addition of massage. All these physiological

effects are included under the general head of catalysis.

Chemical Effects.—Irritation produced by the application of a galvanic current involves certain changes in the fluids and tissues of the body, the severity of these changes depending on the duration of the application, on the amperage of the current and the pole used. The changes may consist in an actual destruction wrought by electrochemical decomposition (electrolysis) or in chemical alterations due to the introduction of chemical agents into the tissues and fluids of the body (cataphoresis, metallic electrolysis).

Positive (Anodal) Electrolysis

This designation comprises certain effects which occur near the positive pole of a galvanic current applied to the tissues. If a needle is inserted into a piece of raw meat and a galvanic current of about 10 m.a. is allowed to pass with the needle as its positive pole, the needle will soon be found to stick fast. The point of insertion will look dry, white and shrunken. If the needle is made of iron, steel, copper or any other oxidizable material, it will be oxidized and an oxide of the metal will be deposited around the point of insertion of the needle, causing a staining of the tissues. If the current is strong enough, the stain will be permanent.

The positive pole has an affinity for oxygen and for acids. The latter coagulate the tissue-albumen and in this way interfere with the blood circulation. This explains the styptic action of the positive pole. After the application has been made, the current is turned off and reversed. In this way the electrode used for positive electrolysis is released and can be easily removed.

The electrochemical destruction of tissue makes the positive pole available in the treatment of various conditions, to wit:

1. Growths Consisting of Dilated Capillaries (angiomas, birth-marks, cirrroid aneurism, varices, acne rosacea, etc.). One or more needles representing the positive pole of a galvanic current are introduced into the growth until the coagulating and

styptic effect has been produced. The negative pole is put in an indifferent place.

2. Growths of Soft Texture (moles, polypi, fungi, warts, etc.) can be removed by cutting off the blood supply, the instrument used being one or more needles.

3. Hemorrhage, active or passive, especially from turgescent mucous membranes, can be stopped by the positive pole, the application being made by means of a flat electrode. This application is available in gynecological practice to stop bleeding from the endometrium (by means of an intrauterine electrode). Infected areas (lupus, tinea, etc.) often are successfully treated by positive electrolysis.

It is well to know that *gonorrhea*, especially in the postacute form, can be checked by positive electrolysis. The gonococcus cannot withstand the action of the current and soon becomes nonviable.

Negative (Cathodal) Electrolysis

The negative pole of a galvanic current attracts hydrogen and alkalis. If a needle, charged negatively, is thrust into raw meat, the needle will not stick. A whitish foam will issue from the point of insertion of the needle, the foam being composed of bubbles of hydrogen. The tissues near the point of insertion are softened and even liquefied. Therapeutically the *process of destruction* set up by negative galvanic electricity can be utilized in the treatment of manifold conditions, to wit:

Superfluous Hair.—The patient holds a metal-handle electrode in his hand. The other electrode is a fine needle which is introduced into the canal from which the hair emerges and the current is turned on, the needle electrode being charged negatively, the handle electrode positively. The object is to destroy the matrix of the hair-follicle. As soon as a little whitish foam is seen to issue from the point of insertion of the needle, the current is turned off and the needle withdrawn. The hair is readily taken out by means of a suitable forceps. If the application is properly made, the hair will not grow again.

Cicatrices.—Scar-tissue resulting from burns, inflammations or various traumatic conditions can be softened and stretched by negative electrolysis. In cicatricial strictures of an accessible canal this method is indicated. It is the ideal way of handling urethral strictures in the male. Robert Newman, whose name will for all time to come be associated with this branch of conservative surgery, has given us very accurate directions as to the proper procedure.

URETHRAL STRICTURE

The instruments needed for the successful practice of negative electrolysis in the treatment of urethral strictures are the following:

Newman used a cabinet with Leclanche cells so arranged that the instrument at zero could be increased by single cells without any interruptions or shocks, so that the patient hardly perceives the increase of current strength. A rheostat, according to Newman, is not necessary, in fact should be avoided. Use good cords with a sufficient number of strands of copper wire. A milliamperemeter is absolutely necessary to measure the current, which is given from three to five milliamperes.

Bougies à boule of whalebone for the examination of the urethra, and locating the strictures, different sizes, with an olive-shaped head and slender neck, which adds to their flexibility.

Filiform guides for the tunnel-electrode.

Four sets of electrodes, as follows:

(a) Egg-shaped set of electrodes. The regular electrodes for all ordinary cases have a short curve, an egg-shaped metallic bulb at the working end, while at the upper end there is a round wire rod for the binding screw of the negative pole of the battery; the only points not insulated and acting as conductors for these extremities. The rest of the electrode must be well insulated, smooth, and without inequalities. Newman considers a conical bulb objectionable in most cases, as we depend on the electrolytic power of absorption, not on force. The length of the bulb is proportioned to the size of the electrode; thus for No. 11 French, the bulb is 3-16 of an inch, while

for No. 21 it is 3-8 of an inch. The set consists of Nos. 11, 14, 17, 18, 20, 21, 23, 25, 28, of the French scale.

(b) Acorn set of electrodes. These are for use in the first six inches of the urethra in certain cases, and consist of Nos. 15, 17, 20, 22, 25, 27, French scale. They are without a curve, short, and the bulb is acorn-shaped. Sometimes it is desirable to gain ground by entering the contraction first with the point of the electrode, in order to follow easier with the larger part of the acorn; here this form will do good work. The action of the electrolysis depends upon the largest diameter of the bulb in these cases and does most service on the withdrawal of the electrode, when the operator feels best how much work should be done. It is also used when the stricture is near the meatus.

(c) Set of tunneled electrodes. These are in Nos. 9, 11, 14, 17, 20, 21, French scale. They are very important for bad, tortuous strictures and are to be used only by the expert operator. The curve is shorter and the egg-shaped bulb tunneled so that it may be introduced over a filiform guide. When the strictures are tortuous these electrodes are safer, and false passages are impossible.

(d) The combination electrode. This is a tunneled electrode combined with a catheter. When a very tight stricture is complicated with retention of urine, the indications are to remove the obstruction and draw off the urine with the same instrument, as the parts are too sensitive to tolerate the introduction of two instruments in succession. The patient may also be benefited by washing out the bladder, all of which can be done with one introduction of this instrument.

The armamentarium is completed by a few binding screws, some whalebone bougies, olive-pointed whalebone filiform guides, conducting cords, and a milliamperemeter.

The bulbs of all electrodes are just as large as the size they represent, not conical at the end as the sounds are, as usually supplied. This makes a difference of from six to eight numbers between Newman elec-

trodes and the shop instruments, in which the number is expressed by the size of the shaft.

Use only superior instruments, that are manufactured correctly. Very dangerous are the electrodes which are only metal bulbs, and must all be screwed to one stem. Money should be no object: inferior instruments may endanger the life of the patient, and the best are the cheapest in the end. A good electrode will last a lifetime. Always examine your instruments before the operation; test the battery and the two poles, and be sure that everything is in working order.

Strictures are infringements upon the caliber of the urethra, caused either by a traumatism, but mostly by pathologic changes after inflammation. Causes are the long-continued discharges of an urethritis; and also masturbation and other excesses; fibrous formations and cicatrices which infringe slowly but steadily on the caliber of the urethra from the outside as infiltrations in submucous tissues, spreading in a circle, and sometimes invading everything, except the foreskin. Such formations are absorbed entirely by electrolysis, which thereby must cure the strictures because they are removed. No cutting nor dilation can be successful in such strictures.

The art of applying electrolysis successfully in strictures consists in observing these points: (1) Using the correct strength of the galvanic current. (2) Applying the respective poles in the right place. (3) Selecting the size, shape and material of the electrode. (4) Regulating the duration and intervals of seances. (5) Guiding the electrode and using no pressure.

If the art of electrolysis is applied correctly, it will cure every organic stricture, but must necessarily fail in spasmodic tenesmus. The galvanic current necessarily must make such spasm worse, and in most cases cannot pass it without tearing the contracted passage. Do not fail to note that the process of treatment is *not* cautery, not heat, not dilation, not divulsion, but simply the removal of the stricture by the electrolytic action.

Diagnosis of urethral stricture is very important, and such must be made correctly by the examination and measurement.

The preliminary examination is made best by the bougie à boule, as an exploring instrument, which transmits to the fingers certain sensations, and presupposes in the operator a highly tactile expertness. It is used to make out the real topography: the number, nature, size of strictures; and each should be measured as to distance from the meatus. Write all in your notebook, and never operate on the same day.

Auxiliary examinations can be made with a good urethroscope or cystoscope, having electric light. Then the plan for operation should be made, the size of the electrode chosen with a perfect understanding what can, will and must be accomplished during the next seance.

Be careful in making the correct diagnosis and *exclude the differential maladies*, as granular and glandular urethritis, gouty concretions, spasms, prostatitis, calculus, vesical catarrh, neuralgia, tumors, abscesses, diseases of the bladder and rectum, and particularly consider that a small stream of urine is not always a sign of stricture.

Antiseptic precautions for the urethral canal should be made, as a preventive. Get your battery in order, attach the cords, *the red-color* to the positive pole, and use a pad as an electrode moistened with hot water. *This positive pole the patient keeps in the palm of his hand*, or he may affix it to a leg or the abdomen. *The green-color* cord is fastened to the negative pole, and on its distal end attached to the electrode selected for the seance. The posture of the patient is immaterial, and he may select the most convenient, stand or lie on his back as he pleases. The electrode must be lubricated with a conductor, and the best (and we may say the only kind to be used) is either glycerin or white of egg. Never use oil or a dangerous lubricant like vaseline. Have your milliamperemeter free and connected with the battery. The usual size of the electrode should be selected two or three numbers (French scale) larger than the stricture. Anesthetics are not

practicable, as it is best that the patient realize the full effects, and pain should never be caused by electrolysis.

When everything is ready beyond a possibility of a failure, the electrode is introduced till arrested by the first stricture. Then the galvanic current is to be increased very slowly and gradually, by only one cell at a time, until the patient feels an increase of warmth and the meter marks from three to five milliamperes. *Never use more than five milliamperes*, unless you are an expert and have a good reason for using a stronger current. Always merely guide the electrode, never use any pressure or force of any kind. The electrolytic action of the current will soon act as an absorbent, make the caliber thereby larger, the instrument slowly advances, passes the obstruction and sometimes will even jump through the stricture. If there are more than one stricture, the electrode should be guided in the same way until all these are passed. For the first time and, if necessary, oftener, the electrode may be passed through the neck of the bladder. Next the electrode is slowly withdrawn and held a little time at each stricture until the last (in fact the first one) is passed, and then the current is diminished cell by cell slowly to zero, but not until then is the electrode to be removed. Under no circumstances must force or pressure be used; the electrolysis acts by absorption and not by force, and the electrode will take care of itself. The time for each seance is regulated according to circumstances and may last from five to twenty minutes.

After each seance the operator must disconnect the cords and put at rest the battery and the meter. Only one electrode should be used at a seance, and the patient should not be troubled in the intervals with the introduction of any instrument. (It is hoped that the barbarous treatment of using fifteen bougies in one seance, the patient remaining with pain in a pool of blood, belongs to the past history.) Seances may be repeated in a week, and only specific circumstances may change this rule. Careful manipulation and prevention will do away with any unpleasant after-effects, such

as urethral fever, cystitis, pain, etc. The patient, during the treatment, is not prevented from attending to his business and pleasure, and only must refrain from excesses. There can be no relapses as the pathological formations causing the strictures have been removed. Spasmodic actions must be treated by other currents, like the faradic high-tension. Galvanism makes a spasm worse, but if electrolysis cures a stricture, it is the best proof that it was an organic stricture.

Newman's Rules.—In an article published some years ago in *The Electro-Therapeutist*, Newman summarizes the rules for electrolysis of urethral strictures as follows:

1. Any good galvanic battery will do which has small elements and is steady in its action. The writer has constructed a portable twenty-cell galvanic battery. A cabinet is a more modern fixture, and is stationary, to be used in the office.
2. The fluid for the battery ought not to be used too strong.
3. Auxiliary instruments are important to the expert but not necessary for the beginner. However, a milliamperemeter to measure the current is now imperative.
4. For the positive electrode a carbon is used, covered with sponge or absorbent cotton, moistened with hot water and held firmly against the cutaneous surface of the patient's hand, thigh or abdomen.
5. For the absorption of the stricture the negative pole must be used.
6. Electrode bougies are firm sounds, insulated with a mass of hard-baked rubber. The extremity is a bulb, which is the acting part in contact with the stricture.
7. The curve of the electrode should be short; large curves are mistakes.
8. The battery must be in good working order, and tested.
9. All operations must begin and end while the battery is at zero, increasing and decreasing the current slowly and gradually one cell at a time, avoiding any shock to the patient.
10. Before operating, the susceptibility of the patient to the current should be ascertained.

11. The problem is to absorb the stricture, not to cauterize, burn or destroy tissues.

12. Weak currents at long intervals are proper.

13. In most cases a current from two and a half to five milliamperes will do the work, but it must be regulated according to the work to be done.

14. The seances should be at intervals, not too frequent in succession, about a week on an average, and each lasting from five to twenty minutes.

15. The best position for the patient to assume during the operation is that which is most comfortable to himself and the operator. I prefer the erect position, although the recumbent or others may be used.

16. Anesthetics I like to avoid; I want the patient conscious so that he can tell how he feels. Sometimes, and exceptionally, cocaine may be used locally.

17. Force should never be used; the bougie must be guided in the most gentle way; the electricity alone must be allowed to do the work. Avoid causing a hemorrhage.

18. During one seance two electrodes in succession should never be used.

19. All strictures are amenable to treatment by electrolysis.

20. Pain should never be inflicted by the use of electrolysis: therefore it should not be applied when the urethra is in an acute, or even subacute, inflammatory condition.

21. The electrodes should not be greased with substances which are nonconductors and would insulate.

22. For ordinary strictures the size of the bougie selected should be two or three numbers (French) larger than the stricture. Since my method has become popular, some instrument-makers have sold an inferior and faulty article by the thousand, and very cheap. Some have even manufactured at random instruments which they sell as Newman's electrodes, for which I am not responsible, and deny most emphatically the parentage. I have seen many defective instruments with which nobody could perform the operation correctly.

23. All instruments must be made correct and firm.

24. Filiform guides must be blameless, particularly not split anywhere.

COMMENTS ON THE LESSON

We are well pleased with the number of students taking the Postgraduate Course this year—but not satisfied. There should be many more, and again we wish to urge every reader of *CLINICAL MEDICINE* to take it up. While the work has been to a certain degree elementary during the past year, during the months to come it will enter more and more deeply into the therapeutic art. It is our purpose to make it superior to anything undertaken anywhere else. As already announced we hope to be able to take up *Applied Therapeutics* in a few months. When we embark in this there will be a special clinical subject for discussion in each lesson and upon this all our forces will concentrate. Not only will the medicinal means for meeting this condition be pointed out but the application of the physiotherapeutic agents will also be elucidated. We hope to get to this part of our course about July 1.

On new students we want to urge the purchase of a good consulting library. These books you should have: Butler's "Text-Book of Materia Medica, Therapeutics and Pharmacology," Juettner's "Physiotherapy," and the Waugh-Abbott "Text-Book of Alkaloidal Practice," and "Alkaloidal Therapeutics." You will find them all practically indispensable.

We are gratified by the number of our old students who are coming in for another year's work. We want to say that they will receive ample recognition in the way of certification. We have not yet worked out a plan entirely to our satisfaction, but we think the annual exchange of the previous year's certificate for one showing two years' work, or for three years, as the case may be, may well meet the indications.

We hope you like the certificates. They are 11x14 inches in dimensions, specially engraved, signed by the officers of the school

and adorned with neat ribbon and seal. We think them something to be proud of—not only on account of their beauty (which every one admires) but because also they are an evidence of hard work, well done. Tell us how you like them.

Many of the comments this month are on the January lesson. Never mind if they are a month old. They are still worth while.

Ionic Action in Medicine and the Halogens.—We asked our students to explain this subject some months ago. One of the best comments is that of Dr. Frank J. Weigand, Richmond Hill, N. Y., which follows:

“Broadly speaking, the human body may be said to consist largely of colloids—glue-like and uncrystallizable substances. Hardy, of Cambridge, England, demonstrated that colloid particles bear an electrical charge acting just like simple ions and that they also carry a positive charge and are then precipitated by the negative ions.

“A. P. Mathews, considering that the nerves, being made up of colloid particles in suspension, become of thinner consistency under the influence of chloroform, as shown by Overton, concluded that this must be the process by which a nerve loses its irritability, and also that nerve stimulation must be the production of just the opposite condition, i. e., that the nerves are made to approach the firmer consistency of jelly, as would be brought about by precipitation of the colloid particles. The firmer the consistency of this jelly-like material the readier the transmission of nerve impulses. If they were positively charged, precipitation would be offset by a negative current, and this be found true, the stimulation of a nerve electrically proceeding from the negative pole or cathode. He then found that motor nerves are stimulated and carry stimulant impulses to a muscle when the nerves are bathed in solutions of various salts, the nerves apparently releasing negative ions at the muscle terminal. He reasons that if the positive and negative ions in the nerve are balanced, and a solution in which nega-

tive ions were in excess were brought into contact with it, the negative ions would precipitate the adjacent colloids in the nerve, resulting in a wave or series of precipitations along the nerve, liberating negative ions at the nerve ending to call the muscle into action. He found that different quantities of different salts produced equal effects, with some relationship in the salt-forming element to their atomic weights. Fluorine was the most active of the halogens, bromine, iodine and chlorine following in order. This he accounted for on Lamar's hypothesis that there is a kind of electric atom or charge not associated with ordinary matter, which rotates about the atom of fluorine at twice the rate as about chlorine, hence developing a more powerful field of action. The halogens then act by carrying electrical charges through the body.”

Antagonists and Incompatibles.—One correspondent says he does not understand “antagonistic” and “incompatible” as fully as he would like to.

“Incompatible may be both chemical and pharmaceutical. Sometimes “therapeutic incompatibility” is spoken of, but this is not scientifically correct since one substance cannot be therapeutically incompatible with another although it may be a physiologic antagonist.

As regards incompatibility: when different substances, whether liquid or solid, are combined and associated and undergo a more or less complete change they are said to be “incompatible,” the incompatibility consisting of two kinds, chemical and pharmaceutical. An example of chemical incompatibility would be mixing solutions of soluble salts like lead acetate and zinc sulphate, both soluble salts but producing by mutual decomposition a new and insoluble salt, sulphate of lead, which is precipitated, and another compound, soluble zinc acetate.

Pharmaceutical incompatibility implies the production of more or less insoluble substances in mixtures or preparations of vegetable drugs, associated, or not, with any chemical compounds. Pharmaceutical incompatibility may occur in liquids or solids,

although much more frequent in liquid substances, causing a separation of either inert or active ingredients. Examples: vegetable tinctures of resinous drugs with water, such as tincture of guaiac and water, copaiba and oil with aqueous preparations, spirit of nitrous ether with mucilage of acacia, etc.

Incompatibility may not necessarily interfere with the therapeutic efficiency of the preparation or mixture, as indeed the physician may intentionally write a chemically incompatible prescription, as for instance "black wash" or "yellow wash." Other instances are such pharmacopeial preparations as liquor ammonii acetatis, mistura ferri composita and liquor magnesi citratis.

An "antagonistic" drug is one which produces an effect contrary to that of some other drug. In other words, it opposes the action or modifies the effect of some other drug. Among the best examples of physiologic antagonism are atropine and morphine, and aconite and digitalis, although these drugs are frequently given together.

No general rule can be laid down for the avoidance of physiologic antagonists. Some of our most valuable drugs contain active principles which are physiologically opposed to each other in their action. Instance: jaborandi, which contains two absolutely antagonistic alkaloids, pilocarpine and jaborine, the latter in small quantity yet sufficient to control the action of the former.

Strychnine Poisoning.—Dr. John R. McCarty of Fredonia, Pennsylvania, had a rather serious but interesting personal experience from poisoning from 1-10 grain of arsenate of strychnine taken in divided doses of 1-40 grain each in intervals of half an hour. He relates the case as follows:

"As the dosage of strychnine that proved excessive I had one personal experience that was altogether 'personal.' The first sensation was that of exhilaration from cerebral stimulation. There was a feeling of general lightness, especially of the legs. My heels felt so light that they tended to jerk up as I stepped, inclining me to be a 'high-stepper.' This was soon followed by cramps in the gastrocnemius followed by

cramps in the other flexors of leg and thigh. Their power appeared to leave the lower limbs. The flexors held tight so that I could not straighten them when I attempted to straighten forward and I fell. Then cramps set in in the muscles of the back with a tendency to opisthotonos; following this the pectoralis major and the respiratory muscles generally felt the effects; and last (and least of all) the muscles of the lower jaw were affected.

"At first the spasms were slight, but they gradually increased and became distressing, and at the same time the intervals became shorter. Those of the respiratory muscles were much the most distressful. The least movement, on the impulse from touch or even from noise, would bring on a spasm. The spasms were to some extent under the control of the will, for by lying perfectly still the interval could be prolonged. The pectoral muscles, being largely involuntary, were the most difficult to control, but fortunately the diaphragm did not appear to be affected, so that by shallow diaphragmatic breathing the muscles of the chest could be held.

"The mind was very clear and very active. The symptoms were fully appreciated and were very interesting. Fifteen grains of chloral in solution (concentrated, to reduce quantity) was carefully drawn through the teeth and with great care, but was swallowed with difficulty. It relaxed the muscles so that in fifteen minutes more I could swallow a similar dose with less difficulty, and after another interval of fifteen minutes I swallowed the third dose with ease. This was followed by general ease, and then by keeping quiet and motionless the symptoms gradually and progressively passed off so as to allow me to move.

"Next in distress to the pectoral muscles and more acutely painful was the heart. Next day the muscles were somewhat sore. There was occasional pain in the heart for several days afterward.

"Now I will relate the most surprising thing in this experience. It was the small amount of strychnine that produced these symptoms and conditions. I had taken

but four doses of strychnine arsenate of 1-40 grain at intervals of one-half hour, 1-10 of a grain in the space of one hour and a half. It seemed so inconceivable to me that so little would produce such results that I allowed the symptoms to get well advanced, thinking all the time they would cease advancing, and hence the delay before I took the antidote.

"The explanation I have to offer is that my nerves must have been peculiarly susceptible at the time. It was during the early convalescence from a severe attack of grip and I was extremely prostrated. Now, strychnine is more quickly absorbed than eliminated, so that there is a tendency to accumulate. In this case on account of prostration the emunctories were inactive and the kidneys, through which strychnine is principally eliminated, were observed to be inactive. It remains however that 1-10 of a grain should ordinarily not have had such extreme effect, therefore we should allow that the lowered condition of the system at the time rendered the nerves more susceptible. My weight is 164 pounds."

This experience is interesting for several reasons. First, contrary to the general opinion of the poisonous effects of strychnine, the lower maxilla was last and least of all affected. The spasms were, to a large extent, under the control of the will, while also the cardiac pain, which lasted for several days afterward, is interesting. Dr. McCarty in his own experience fully demonstrates the antagonistic action of chloral and strychnine poisoning.

The Doctor thinks that the most surprising feature of his experience is the small amount of strychnine that produced the symptoms. There is only 60 percent of strychnine in the arsenate and 78 percent of the alkaloid in the sulphate crystal. From this it would appear that the arsenate can be given in one-sixth or one-seventh larger doses than the sulphate, but clinically this is not the case. The greater activity of the arsenate of strychnine is probably due to the fact that the acid radical is more active than that of the sulphate of strychnine. This should be remembered and the

arsenate given in smaller doses than the sulphate.

Dr. Richard Connell of North Yakima, Washington, writing in regard to arsenate of strychnine, says that it would seem that one could get the effect of both remedies but would, perhaps, get strychnine poisoning first. He says he had one case in which the patient by mistake (or intention?) took a larger dose of the arsenate of strychnine than she should, and almost immediately exhibited both arsenic and strychnine poisoning. He saw the case almost at the beginning of the symptoms, and while they were very severe for some time, they readily responded to treatment. After one or two days the patient seemed none the worse from her experience.

Those experiences as well as the experiences of many other physicians in the use of the arsenate of strychnine seem to show that we have a very powerful remedy in this salt. We believe with Castro that the arsenate of strychnine is one of our most active vital incitants.

Experience with Picrotoxin.—Dr. Allen L. Walton of Ohio, briefly writes of his experience with picrotoxin which has covered a period of about four years. He says: "I have used it in whooping-cough with good results. In malarial fever, and especially in the remittent form where the sweating period is absent and the skin hot and dry, also in the first stages of eruptive diseases I use it altogether in place of pilocarpine and think in most cases it is better because of its stimulating properties."

Treatment of Facial Neuralgia.—Dr. W. C. Wolverton of Linton, North Dakota, gives the following general line of treatment for facial neuralgia:

- "1. The clothing must be of wool.
- "2. Cold bathing, hot salt-baths, rubbing, slapping, and other forms of massage, should be employed daily, the year round, to lessen the susceptibility of the patient.
- "3. The diet should be rich and easily digestible; codliver oil by stomach or skin is to be used in all cases of thinness, where the nerves have not sufficient covering.

"4. Iron and arsenic are useful if anemia is present. A very rapid increase in hemoglobin may be secured as follows: take ten to fifteen pounds of Hamburg steak; put in rice-boiler and keep at 56° C. for four hours; at the end of that time the steak has been converted into a red fluid; strain, season, and have the patient drink freely of it; this 'liquid beef' contains 6 to 10 percent albumin; proprietary articles have only 1 to 3 percent.

"5. Many neuralgias are due to refractive errors, hypertrophied turbinates, 'spurs,' nasal or aural polypi, deflected nasal septa, affections of the various accessory air sinuses, carious teeth, etc.; these 'reflex' causes should be carefully looked for in all cases and remedied if found.

"6. Constipation, with consequent intestinal autotoxemia, is an exceedingly frequent cause of neuralgia, and the treatment in such cases is obvious: Calomel, podophyllin, phenolphthalein, salines and sulphocarbolates, to 'clean out, clean up, and keep clean.'

"7. The following is a good combination to break up an inveterate neuralgic habit: Phosphorus, gr. 1-80 (or zinc phosphide, gr. 1-10); strychnine arsenate, gr. 1-30; arsenous acid, gr. 1-30; ext. cannabis ind., gr. 1-4; oleores. capsicum, gr. 1-6; quinine, gr. 3. This may be given in pill or capsule, four times daily, for a week; at the end of this time the phosphorus may be omitted and the other ingredients continued; when a few weeks have passed, strychnine arsenate may be substituted and continued for a long time.

"8. Vibration, both centric and peripheral, is of great value.

"9. The injection of alcohol or osmic acid into or near the affected nerve-trunk often has remarkable curative effect.

"10. Removal of a considerable portion of the nerve is sometimes done; and in absolutely intractable severe cases it is occasionally necessary to trephine the skull and destroy the gasserian ganglion."

We shall discuss neuralgia at greater length next month, with the answers to other questions in the February number.

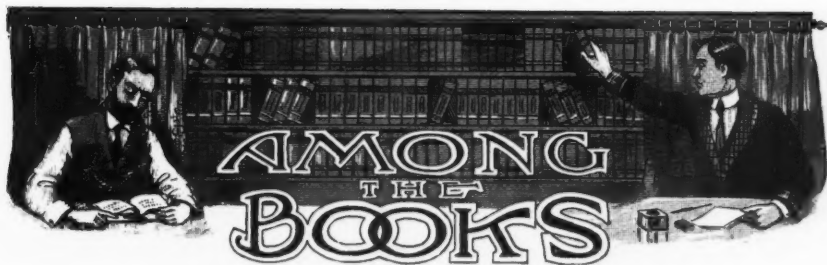
Aspidospermine in Chronic Bronchitis.—Dr. Chas. E. Buckley of Chicago, Illinois, commenting upon aspidospermine says that he has used the drug in the dyspnea of chronic bronchitis in the aged, combined with strychnine arsenate and glonoin, in hot solution, every one to two hours until effect, then less often. It caused a liquefaction of the tenacious mucus attached to the walls of the bronchi and bronchial tubes, thereby facilitating expectoration, and the combined action of aspidospermine, strychnine and glonoin stimulated the respiratory movements, regulated the heart and relieved the dyspnea.

EXAMINATION QUESTIONS

1. Explain the physiology of sleep. What is the influence of cold on sleep and how is it best counteracted? Explain the insomnia of high temperature.
2. Give an outline of treatment for congestive insomnia. In your opinion, what other remedies than opium and antimony would meet the indications, explaining why?
3. What is the influence of pain upon the circulation? How does it cause insomnia? Why does morphine relieve the insomnia of pain?
4. In what forms of insomnia would veratrine be of value? Discuss the relation of vascular equilibrium to the production of sleep and suggest remedies to attain it.
5. In what classes of cases should chloral and the bromides be forbidden? What remedies should be given in these cases?
6. Discuss the insomnia of passive hyperemia and suggest treatment.
7. What are the physiologic effects of the galvanic current? Which pole is sedative and which stimulant? Why?
8. Explain the causation of functional neuroses and suggest electrical treatment. How would you treat facial neuralgia, congestive headache, and why thus?
9. Explain the difference between positive electrolysis and negative electrolysis. Give common applications of each.
10. Give technic for electrical treatment of urethral stricture.

RESEARCH QUESTIONS

1. Make a brief classified list of the most important hypnotics, telling action, advantages and dangers of each.
2. What method and remedies have you found most valuable in the treatment of the common types of insomnia? Give details.
3. People of advancing years are troubled with insomnia during the early morning hours. Explain and give treatment.
4. Report one case of insomnia which you have treated successfully, telling your method.
5. Give experience as to best methods of relieving urethral stricture—electrical, medicinal, surgical.



BANDLER'S "MEDICAL GYNECOLOGY"

Medical Gynecology. By S. W. Bandler, M. D., of the New York Post-Graduate Medical School and Hospital. With original illustrations. W. B. Saunders Company, Philadelphia. 1908. Price, \$5.00.

The great success of gynecological surgery of modern times has for a while obscured the medical treatment of the numerous diseases to which the female is specially liable. Recovery from this unreasonable conception is coming rapidly. This finely bound volume of nearly seven hundred royal-octavo pages does full justice to pure medical gynecology. The thirty-four female diseases which the author discusses are treated very practically and in detail. The book will be of immense value in the daily practice of the general practitioner. It is the outcome of the author's twelve years of lecturing on the subject.

WILLIAMSON'S "DISEASES OF THE SPINAL CORD"

Diseases of the Spinal Cord, by R. T. Williamson, M. D. (Lond.), F. R., C. P., of the Victoria University, Manchester. With 183 illustrations and seven plates. Henry Frowde, London and New York. Price \$5.50.

This work is the outcome of fifteen years' teaching in the Manchester (England) medical school. It is one of the most exhaustive works in the description of both the normal microscopic anatomy and the abnormal, and it does not neglect symptomatology and treatment. It is very abundantly

illustrated. Its 412 octavo pages contain the matter of the following fourteen chapters, treating of about sixty-seven subjects. We will name the chapter headings, this giving an idea of the book's scope: (1) Structure of the Spinal Cord. (2) General Pathological Histology, Degeneration of Nerve Fibers, Tracts and Cells. (3) Function of the Spinal Cord. (4) Symptoms of Spinal Diseases. (5) Electrical Examination. (6) Diagnosis and Localization of Diseases of the Spinal Cord. (7) Diseases Causing Symptoms of a Transverse Lesion of the Cord. (8) Diseases Causing Atrophic Paralysis. (9) Diseases Causing Spastic Paresis. (10) Diseases in which Ataxia is a Prominent Symptom. (11) Spinal Meningitis. (12) Clinical Forms and Pathological Anatomy of Spinal Syphilis. (13) Traumatic Affections of the Spinal Cord. (14) Appendix—Method of Pathological Examination of the Spinal Cord.

OSLER'S BIOGRAPHICAL ESSAYS

An Alabama Student and Other Biographical Essays. By William Osler, M. D., F. R. S. Oxford University Press. American Branch, New York. London, Henry Frowde. 1908. Price \$2.00.

We wish that every biographer might be of the same kindly and penetrative kind as he who writes this book. As "all work and no play makes Jack a dull boy," so much medical reading and ignorance of the higher medical life is likely to make of the physician a spiritless doctor. Osler's present volume easily stands foremost among books about physicians. Besides a graceful tribute to the

memory of a well-nigh forgotten "Alabama Student," Dr. John Y. Bassett, of Huntsville, Alabama, who studied in Paris in the '30's and practised in his native state. Osler gives us some entertaining essays regarding Dr. Thomas Dover (he of "powder" memory); John Keats, the apothecary poet; Oliver Wendell Holmes, the poet-anatomist; John Locke, philosopher and statesman, and Elijah Bartlett, the Rhode Island philosopher. There are chapters on the influence of Louis on American medicine, on William Pepper, Alfred Stillé, Sir Thomas Browne, Frascatorius and Harvey and his discovery. There is a power of culture in these biographies greatly to be recommended to young and old physicians.

PHYSICIAN'S VISITING LIST FOR 1909

Physician's Visiting List for 1909. Publishers, P. Blakiston's Son & Company, Philadelphia, Pa. For twenty-five patients per day or week. \$1.00.

This annual visitor is in its fifty-eighth year of existence, and it is as welcome as ever. It bears in small type and parenthetically the firm's old name, Lindsay & Blakiston. Besides the usual blank pages for listing patients' visits it has the following useful tables and memoranda: Uterogestation table, table of signs to be used in the list, incompatibility, immediate treatment of poisoning, metric and usual weights and measures and their conversion dose-table, asphyxia and apnea, thermometer comparison.

BECKHAM'S "OPERATIVE SURGERY"

A Textbook of Operative Surgery. For Practitioners and Students. By Warren Stone Beckham, M. D., of Turo Hospital, New Orleans. Third edition, greatly enlarged, containing 854 illustrations. Philadelphia and London: W. B. Saunders Company. 1908. Price \$6.50.

This book covers the surgical anatomy and the technic of operations which, however well learned in the lecture and operating rooms, are not with great difficulty forgotten

when one pursues general or exclusive medical practice. The book after repeated editions since 1903 has, in the present one, been thoroughly revised and enlarged both in text and illustrations, and embodies the latest advances in surgery. The entire plan of the detailed teachings of the book is very practical and promising for any case in hand.

CULLEN'S "ADENOMYOMA OF THE UTERUS"

Adenomyoma of the Uterus. By Thomas S. Cullen, M. D., Associate Professor of Gynecology in Johns Hopkins University. Large octavo of 270 pages, with illustrations. By Hermann Becker and August Horn. W. B. Saunders Company, Philadelphia and London. Cloth, \$5.00 net; half morocco, \$6.50 net.

A rare contribution to the discussion of tumors, and of uterine tumors in particular.

FINDLEY'S "GONORRHEA IN WOMEN"

Gonorrhea in Women. By Palmer Findley, M. D., of the University of Nebraska. St. Louis: C. V. Mosby Medical Book and Publishing Company. 1908. Price \$2.00.

A few years ago we had the pleasure of reviewing "The Diagnosis of Diseases of Women," by the same author, and were delighted then with the thoroughness and eminent usefulness of the author's work for the benefit of the practising physician and so we anticipated another profitable medical treat now from the author, and are again gratified. The author gives us here a monograph in every way efficient, informing, and of practical use. Again we see the author a disciple of the German propensity to thoroughness and honesty of statement. We regret, however, the vague statement on page 10 that the Jerusalem Talmud has frequent reference to gonorrhea. In what treatise? It is only in the Gemaric discussions on the Mishna where the Jerusalem differs from the Babylonian Talmud. But while the Babylonian Talmud has a whole Mishnaic treatise on fluxes from the geni-

talia, the Masechet Zavim, the Jerusalem Talmud, contains no such reference. The reader please pardon this technical literary detail, and the author please take kindly this "*zurechtsetzung*." It seems inevitable when modern authors refer to Judaic lore that they make what the German call a "*schnitzer*."

Let me give the headings from the list of contents in order to attract the reader to the valuableness of this thorough monograph, viz.: Historical Sketch; Etiology; Pathogenesis; Pathology; Course of Gonorrheal Infection; Diagnosis; Frequency of Gonorrhea in Women; Sociology; Treatment; Systemic Gonorrheal Infection; Literature. The book is excellently printed and bound, and its large page makes it possible for all the rich contents to be embodied in but a little over a hundred pages.

"GYNECOLOGY AND ABDOMINAL SURGERY"

Edited by Howard A. Kelly, M. D., F. R. C. S. (Hon. Edin.) of Johns Hopkins University and Charles P. Noble, M. D., S. D., of the Woman's Medical College, Philadelphia. Volume II. Philadelphia and London: W. B. Saunders Company. 1908. Price \$8.00.

This great work is the second volume, the first one of which we reviewed last January, and what we said then we repeat here:

In the present irrepressible tendency to differentiate specialism in medical work, there is thought to be danger that the gynecologist may not sufficiently engross his mind with other parts of the body beside what belongs exclusively to gynecology, and the general surgeon may also not sufficiently familiarize himself with gynecological work. To obviate this danger is the object of the volume now before us and of one or two more to come. At the same time the strictly medical part of gynecology is also treated quite fully so that the specialist may be furnished perfectly for every good work in his line. The equipment and illustrations of this volume deserve special laudation.

There is no special preface to this volume and the text begins with chapter xxvi, on complications following operations, and continues to chapter xlv, on the following subjects: Cesarean section and Porro cesarean section; operation during pregnancy; operative treatment of sepsis in the child-bearing period; extrauterine pregnancy; diseases of the female breast; operations on the gall-bladder, bile-ducts and liver; operation upon the stomach; pyloroplasty; intestinal surgery; operations for diseases of the vermiform appendix; surgery of the pancreas; surgical treatment of diseases of the pancreas; operation upon the spleen; tuberculosis of the peritoneum; penetrating wounds of the abdomen; hernia; operations for inguinal hernia; the use of drainage in abdominal and pelvic surgery; surgery of the urethra; surgery of the kidney. It remains to be said that the two volumes are both encyclopedic and also monographic in their completeness, and the latest to be had by the best practical surgeons. The publishers deserve high praise for the high standard of the mechanical execution and the illustrations.

NEFF'S "ANESTHESIA"

Practical Points in Anesthesia. By Frederick Emil Neff, B. S., B. L., M. D. Surgery Publishing Company, New York. Price, cloth, 60 cents; flexible leather, \$1.50, postpaid.

The literary beauty of this holiday-looking little book more than equals its material beauty. We do have some big library-shelf-burdening books on anesthesia whose authors seemed to have imagined that the practitioner has nothing else to read but just this his book. Not so Dr. F. E. Neff. His good little book has but 38 octavo pages with luxuriously broad margins of strictly unpadding text, and here are comfortably placed fresh, crisp ideas on this subject, including induction of anesthesia; cardiac and respiratory collapse; when the patient is ready for operation; maintaining anesthetic state; reflexes; vomiting; obstructed respiration; breathing tube; stimulants; mor-

phine and narcosis; awakening; tongue recessions; distress after operation; ethyl chloride; and so on. For these items, and as they are so well said, anyone will have time to read, and he will be grateful, besides.

CLEVENGER'S "FUN IN A DOCTOR'S LIFE"

Fun in a Doctor's Life. Being the adventures of an American Don Quixote in helping to make the world better, and how the problem was solved for him by others in England, France and Germany. Also an endeavor to convert what is usually stupid, egotistical, and uninteresting in an autobiography into many short readable stories and essays, didactic only, though entertaining. By Shobel Vail Clevenger, M. D. Publishers, Evolution Publishing Company, Atlantic City, N. J. 1909. Price \$1.00.

We have this comment to make on this in its own way highly interesting book of sketches. Every one of them is a study in the events narrated and in the narrator of them. We have never known an invaluable book such as this one to sell so cheap.

KEEN AND DA COSTA'S "SURGERY"

Surgery: Its Principles and Practice. By Various Authors. Edited by William W. Keen, M. D., LL. D., and John Chalmers Da Costa, M. D. Volume IV. Five hundred and eighty-two illustrations, twenty-two in colors. Published by W. B. Saunders Company, Philadelphia and London. 1908. Price \$7.00.

This volume is fairly to be called one of the great pillars of the wonderful temple of modern surgery. Wherever you turn you come upon massive learning and minuteness of the detail. The articles are not mere articles in a manual of surgery but all-sided monographs. The master-editor of this whole monumental work, Dr. Keen, knew how to select master and pastmaster workmen to prepare these articles, which treat of the following: Hernia; surgery of the rectum and anus; examination of the

urine in relation to surgical measures; surgery of the kidney, the ureter and the suprarenal gland; surgery of the bladder; stone in the bladder; surgery of the prostate; surgery of the penis and urethra; surgery of the scrotum, testicle, spermatic cord and seminal vesicles; surgery of the intestines (excluding that of the appendix), the rectum and the anus; surgery of the omentum and mesentery; surgery of the appendix vermiformis; surgery of the ear; surgery of the eye; military surgery; naval surgery; tropical surgery; the influence of race, sex and age in surgical affections. There is an index of thirty-three pages. The mechanical part of the volume is excellent. We anticipate with pleasure the next and completing volume.

THE INTERNATIONAL CLINICS

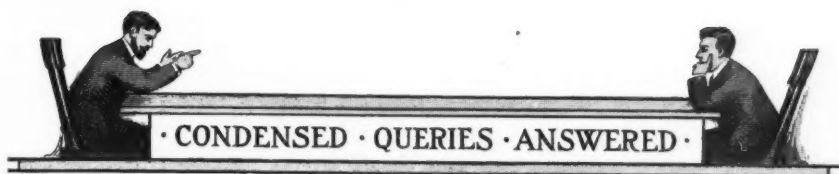
International Clinics. Published quarterly. Volume IV, Eighteenth Series (1908). J. B. Lippincott Company, Philadelphia and London. 1908. Price \$2.00.

A very rich and practically useful number of articles on treatment, medicine, surgery, gynecology and obstetrics, hygiene, neurology, laryngology, pediatrics and pathology. The publishers slipped into this number an "Important" red notice giving the imperative advice to "consult the index." Subjects that cannot be found in the textbooks or monographs are generally fully covered in the *International Clinics*. Each volume is indexed, but the fourth volume of every series contains a general index.

STEWART'S "COMPEND OF PHARMACY"

A Compend of Pharmacy. By F. E. Stewart, M. D., Ph. G. Seventh edition, revised in accordance with U. S. Pharmacopeia and the Pure Food and Drugs Act of 1907. There is a very complete index and table of converted English measures into the metric, and the reverse. Publishers, P. Blakiston's Son & Company, Philadelphia. 1908. Price \$1.00.

While necessarily abbreviated this little book will be found excellent.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5418.—“The Wrong Remedy Does not Give Results!” R. E. G., Oregon, inquires whether arbutin loses its physiological action with age. He bought a considerable quantity of this drug about a year ago, used some of it at the time and obtained the results looked for. But recently, he writes, “I have been disappointed in the results. To my last patient I gave an initial dose of 1-2 grain followed by one-third that dose every fifteen minutes, but after three hours I did not get any appreciable results. Then I ordered this dose to be continued every half hour. This was kept up all day, and still there was no change in the excretion of urine.”

The case here mentioned is one of “kidney of pregnancy,” the symptoms being as follows: Urine pale, low specific gravity (1010), no albumin, no casts, no appreciable sediment. Patient is nauseated most of the time, has pains all over the body, complains of headache all the time, also of peculiar nervous rigor coming on frequently; bowels are loose, there being from two to four movements per day.

Arbutin does not lose its efficiency with age, but to get results the drug must be employed in appropriate cases, that is to say, in patients presenting the pathologic conditions which are amenable to arbutin. We do not see just wherein arbutin is indicated in this instance. Boldine would have been a better drug. There seems to exist no particular renal irritation, albuminuria, putridity or sepsis. Arbutin stimulates the renal cells and is mildly antiseptic, coagulates al-

bumin, diminishes its exudation through the malpighian ducts, and is of specific value in catarrhs of the bladder and genitourinary passages. Atony, hypersecretion and septic conditions are indications for its use. It is a desirable and highly efficient remedy in acute and chronic cystitis, pyelitis, pyelonephritis, gonorrhea and leucorrhea. Owing to its tonic action upon the mucosa it is extremely valuable in prostatic hypertrophies and the attendant congestions.

As a matter of fact, Doctor, after closer consideration, we think, you will acknowledge that arbutin was not indicated and you could hardly expect results. Increased elimination is what you require here, and sedation of the nerve-centers.

A few questions present themselves here. How far is the patient advanced in pregnancy? What is her age, primipara or multipara? Any malposition of uterus? Nausea of pregnancy may be controlled by giving to the patient (in the recumbent position) as soon as she wakes a glass of hot tea or milk and water. The liquid should be taken through a straw or bent glass tube. In half an hour she may get up for breakfast. Before each meal she will take bismuth subnitrate, grs. 2; cerium oxalate, gr. 1, and cocaine hydrochloride, gr. 1-25. Papayotin, gr. 1-3 to gr. 1 may be given after food. The bowels must be kept open, and a snug abdominal supporter should be worn.

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QUERY 5419.—“Pruritus Vulvæ.” L. L. G., Missouri, wants advice. “Perhaps,” he modestly remarks, “I am the only member

of the 'family' who would need to ask for help in treating such an insignificant malady—one which we pass by somewhere daily in our rounds yet seldom see, owing to the fact that patients so afflicted seek to 'keep it covered.' I refer to pruritus vulvæ following typhoid fever and attended with constipation, nervousness, leucorrhea, and so on. I regard the CLINIC's advice as better than textbook reference as it always comes from the best source and unborrowed, being from personal experience."

Pruritus vulvæ, when accompanied by leucorrhea, calls for treatment of the latter condition. You will never get rid of the pruritus while the leucorrhea persists; moreover, in leucorrhea and pruritus following typhoid we have marked debility to contend with and more or less autotoxemia, and the secretions are abnormal. To secure results, you must eliminate and give tonics (such as strychnine, iron and quinine, the hydrastin, xanthoxylin, etc. In connection with this course thoroughly disinfect the vaginal mucosa with copious douches, as hot as can be borne, of an alkaline antiseptic, repeated every other night. Then pack the vagina snugly with a narrow strip of gauze smeared with ichthyol or some similar ointment. The itching will yield almost immediately if the parts are bathed with a solution of magnesium sulphate, 1 ounce; water, 1 pint; carbolic acid, 20 drops. Rarely anything further is required; indeed we do not remember ever having seen a case that would resist this treatment.

In some instances thuja may be utilized, or camphor-menthol. These combinations of camphor and menthol or camphor and carbolic acid are invaluable in pruritic conditions. Frequently a good dusting powder is of use. After treatment the labiæ should be kept separated by a piece of gauze. Not infrequently the rectum requires attention: look especially for fissures or constricted sphincter.

The urine must be examined frequently and any existent pathologic condition corrected.

QUERY 5420.—"A Probably Fatal Case of Leukemia." M. K., New York, reports

in an ideal manner a case of "lymphatic leukemia" in a woman of thirty-two, married about thirteen years, one child (girl) about ten years of age, no miscarriages, and apparently well up to about two years ago, when her appetite began to fail, symptoms of an urgent nature, however, becoming apparent but only six or seven months ago. Up to that time she had been attending whist parties and the like, although feeling easily fatigued on any exertion.

About five months ago the doctor found her spleen quite enlarged (about two and one-half times normal), her pulse ranging between 90 and 120, temperature 99.2°F., pupils dilated. The anemia became more marked, even though she continued to take numerous tonics; her appetite remained somewhat impaired although at the present time she eats quite well, her digestion being good. She is troubled with cephalalgia and the throbbing at her temples is very severe and "as though several carpenters were hammering nails." She has had slight hemorrhages from nose and teeth, and on two or three occasions spat up about two or three teaspoonfuls of blood (waking up with the mouth full); the teeth and nose have bled more frequently but in less quantities, also when blowing nose.

Her menstruation has been very irregular, sometimes thready, for the past few years, intervals between her periods being as much as from five to eight months. Strange to relate, for the past four months she has gotten unwell monthly, during which periods she is extremely weak, pallor is very marked, and she is completely fagged out, resembling collapse, probably the result of loss of menstrual blood. Her weight, now about 118 pounds, has not varied much, notwithstanding the severe condition. She never weighed more than 125 pounds.

The spleen is within an inch of the median line (that is inside of median line), and about one inch above a line drawn from the umbilicus; palpation elicits a slight uncomfortable feeling, little pain. The mucous membranes are blanched, conjunctivas are very pale, tongue sometimes is coated. Her right posterior clavical glands are slightly

enlarged and occasionally painful; no other glands palpable. She had purpura hemorrhagica (slight) on thighs and legs and a little on her arms, but this of only short duration. Liver appears normal. She is very wakeful, has pains in head and the throbbing I described, and at other times the slight hemorrhages. Has oppression in the thoracic region and deep sighing as though to catch her breath; there are dyspnea and cardiac palpitation.

Up to two weeks ago she went for short walks and sat in the park for fresh air. Lately walking has been too great a strain and I advised her to remain quiet and in bed. She is of a happy disposition and imagines her condition one of anemia, not knowing the nature of her trouble; her spirits are thus buoyed and she believes she'll get well; still, she often mentions, since she is taking so many blood-producing medicines, the result is counteracted by the loss of blood.

Examinations of the blood have been made, the appearance being much worse; but she seems better now than when the first examination was made. The urine shows no important changes.

Below is 1st report of blood 2nd report: Oct. 31, 1908

Hemoglobin (Fleischl) 43 percent	34 percent
Red corpuscles 2,060,000 to ccm.	1,563,000 to ccm.
Color index 1.0	1.1
Erythrocytes—	
Size, Moderate variation	Slight variation
Shape, small. No microcytes	Few poikilocytes
Malarial parasites, None	
Fibrin formation not increased	Not increased
White corpuscles 26,880 to ccm.	46,480 to ccm.
Ratio of red to white 1:77	1:33
Differential count of white corpuscles. 1	1
Poly-morphonuclear neutrophils 4.6 percent	2.3 percent
Large mononuclear and transitional 13.0 percent	9.6 percent
Lymphocytes 82.0 percent	88.1 percent
Mast cells 0.0 percent	
Eosinophiles 0.4 percent	
Myelocytes	
Diagnosis—Marked anemia—decrease in hemoglobin and erythrocytes. Large absolute and relative lymphocytosis. These are the findings of lymphatic leukemia	Last report—Anemia more marked, the lymphocytes (lymphoid cells), still further increased Absolutely and relatively.

Now as regards the treatment. The bowels were cared for when necessary, which was but rarely, since they were working nicely. Iron preparations were given (reduced iron, Bland's pills, etc.), with tincture of nux vomica, also strychnine and

quinine. The latter, 3 grains every four hours, seemed to benefit her greatly. "Later" the writer says, "I started Fowler's solution, 3 minims after eating, occasionally dropping it into the bitter wine of iron, and increasing the dose up to 10 minims three times daily. Later I gave Clin's cacodylate of sodium hypodermically, using one tube every day (injected into the gluteal region) for a period of five days. I was also giving her Fowler's solution at this time, so she was getting 30 minims of that plus the hypodermic. This treatment did not seem to affect her."

Allow us to congratulate you upon the clarity and thoroughness of your clinical report. We fear that this case will have a fatal termination (in fact it is almost impossible to expect anything else), and yet it is our duty to medicate as intelligently and effectively as possible to the very last. We should give in this case ergotin, berberine and quinine hydroferrocyanide, every three hours with arsenic iodide, after each meal for a week, changing the latter at that time to the arsenates of iron, quinine and strychnine with nuclein. Continue this medication for two weeks, then return to the arsenic iodide for a like period. For the dyspnea give aconitine, digitalin and strychnine every three hours or as may be necessary to control the symptom. Every second or third night give blue mass and soda, and podophylotoxin at seven, eight and nine o'clock. Over the spleen apply a compress wrung out of saturated solution of magnesium sulphate (one ounce to the pint) and have the body bathed daily with the same solution, half strength. Fresh beef juice should be ordered with each meal. If anything, this line of treatment may prove beneficial, we are confident. The application of the "leucodescent" or similar high-candle-power light over the spleen and glands has recently given results and is recommended strongly by those who have tried it.

QUERY 5421.—"Idiocy." R. O., Missouri, writes: "I have under treatment a boy six years old, well nourished, physically very strong. When about two years of age I relieved him of great nervousness by break-

ing up preputial adhesions. When about two and one-half or three years old he began to fail mentally, his abdomen becoming perceptibly larger; there was nervousness to the extent that he could not be still a minute except when asleep or eating; appetite voracious, bolting his food. He passed urine and feces into his clothes, saying nothing about it. The stools became lienteric, lumpy, and too frequent, though not lacking in bile. His abdomen is quite large all the time, and he has a very large mouth. He sleeps usually from early bedtime up to 1 or 2 a. m., when he wants to get up and get busy about the house. He has no sense of fear, and wants no light in the sleeping room, but his parents often have to get up at 4 a. m. and stay up to gratify him.

"Since this trouble began the boy has been in the hands of other physicians, who have treated him with thyroid extract although there is no involvement of the thyroid glands. His vocabulary is confined to 'papa,' 'mama' and the names of his brothers, these being all right in every respect. The parents of this boy are first cousins.

"I took charge of the case on the 5th inst. and so far have only prescribed to relieve his insomnia (which the mother says I am doing) by the use of ignatia, 3 x, and kali phos., 3 x, in alternation through the day. From what I can learn, the starchy food which he takes does not digest well, though the bowels do not move excessively now, as they did some time ago."

We fear very much that this is an incurable case of idiocy. You do not state whether there is any sign of luetic or tubercular taint. How about possibility of injury in the birth-canal or subsequent trauma? Possibly nuclein and lecithin might be serviceable, but really it seems impossible to prescribe rationally for such a case without a thoroughly clear conception of all the conditions.

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 QUERY 5422.—"Skin Trouble of Persistent Character." C. W. B., Virginia, describes the case of female twins, five months old; both are apparently well except that they have sore spots on the head which seem to resist all treatment. "I have tried," he

writes, "washing with a 1 : 1000 solution of bichloride, dressing with equal parts of calomel and acetanilid, lanolin, carbolated vaseline, creolin, boric acid, listerine, etc., etc. At first the sores seem to heal, then as the scab falls off, the area begins to ooze again, the skin raises up, seems inflamed, and the same trouble exists again as before. It seems to spread from the size of a pin-hole to that of a silver dollar. History shows no venereal trouble on either side of the parents.

"These two children are frequently greatly troubled with gas, which at such times causes great pain. There is no vomiting, except occasionally of curdled milk. The feces after such spells show small particles of green substance, the size of peas, or else the movement is dark-brown. All the nourishment they receive is mother's milk. They have been given castoria, which seems the only thing to give relief; still the 'spells,' as the parents call it, come quite often. The children otherwise seem healthy."

This may be a case of tinea tonsurans but most likely is impetigo with perhaps a staphylococcus infection (secondary). Scrofulous and tubercular children sometimes present atypical lesions of the scalp which are extremely rebellious. You fail to describe the discharge, crust which forms (if any), character of edge, whether the hairs about the lesion are broken short, exact location of the sores, whether at the margin of hair-covered area or on the occiput.

Tentatively we suggest that you first cleanse thoroughly with a good disinfectant soap, dry, then with a camelshair brush paint the lesion with pure oil of turpentine (Merck's). Dry slightly, after a minute or two, with a little cotton and apply dolomol-ichthyol powder. You may have to make two or three applications of the oil of turpentine. Thuja and echinacea (equal parts of each) may be applied in place of the oil of turpentine, or after the latter, on compresses. Do not use ointments in any form.

Internally give nuclein, 2 drops, and iridin in small doses, three times a day; one-half dosimetric dose of arsenic sulphide before feeding, and 1-10 of a grain of calomel at 7

and 9 o'clock every third night. After a week stop the arsenic sulphide for three days, then resume. For intestinal infection give the sulphocarbulates for a few days, dissolving a small amount in sweetened water and giving a teaspoonful every two hours. More may be given, and hourly, if necessary, to a five-months'-old child. Conditions here do not call for much active measures. Do not give any anodynes. Be sure to watch the urine.

Look after the mother's health and control her diet. A few doses of castor oil and a course of the arsenates for her will probably prove "good medicine" for the babies.

QUERY 5423.—"The Arsenates in Chorea." J. W. M., New York, writes: "I should like to try the arsenates of iron, quinine and strychnine combined with nuclein in a case of chorea. What is the best treatment?"

This combination of the arsenates is now known to be among the most generally effective and potent reconstructive tonic at our disposal, but in chorea something more than this is needed. First of all, put the child with a sympathetic but firm nurse. As general measures order rest, interrupted by rhythmic exercises of the muscles (those affected, especially) at short intervals. Give a plain, nutritive diet, and keep the bowels active. Order salt sponge-baths daily, and massage (also vibration if possible) of the spine and limbs.

In the way of medicine order small doses of veratrine every two hours till sedation. Codeine, in very minute doses, will prevent vomiting, giving it only if nausea is complained of. Then, in dosimetric doses, scutellarin, macrotin, avenin, every three hours; juglandin just before meals; zinc phosphide after eating; *passiflora incarnata* at night in dose enough. This will cure in most cases. The veratrine usually is given for a full thirty-six hours. It may have to be repeated.

If the case drags, push picrotoxin to effect—remedial or physiological—then administer cicutine for some days, in dosimetric doses every four hours. In rare cases a few doses of atropine valerianate, followed by canna-

bin, will stop the habit-spasm, and if then the arsenates together with nuclein are given (after each meal) and scutellarin and avenin are pushed (between meals) the disorder should not return.

In all cases it is essential to continue tonic treatment for a month at least after the choreic manifestations have disappeared. Older children should be taken from school and sustained mental effort forbidden. Outdoor life and active exercise (moderate at first) mean much. If the patient can be taken off to the woods and allowed to return for a few weeks to "primitive methods of living" a cure will almost assuredly follow. In the foregoing we have copied freely from Candler's "Everyday Diseases of Children."

QUERY 5424.—"Calcium Sulphide and 'Cuban Itch.'" L. W. M., Tennessee, says there is raging in his district an epidemic of variola, or what is called "Cuban itch," and asks for suggestions for treatment.

To begin with, we earnestly urge the use of calcium sulphide in fractional doses at frequent intervals. However calcium sulphide is a peculiar drug in that if subjected to pressure (even so little as necessarily involved in making pills) becomes hard as a rock, and so too often such pills or tablets pass through the intestinal canal undissolved. But granules properly made are promptly soluble and 1-8 to 1-3 of a grain hourly for twelve hours will often produce saturation."

We suggest that in these cases you alternate echinacea and calcium sulphide. Keep the bowels freely open with calomel, podophyllin and iridin, and bathe the body with a carbolated solution of magnesium sulphate.

We have so many times called attention to the difference between Cuban itch and variola that you are doubtless familiar with the subject. If you are not, look up in your files of CLINICAL MEDICINE, especially for 1907. From Dr. Egan, Secretary of the State Board of Health, Springfield, Ill., you can obtain a very interesting little booklet on smallpox, Cuban itch, and similar affections.

Unfortunately the term Cuban itch is very loosely used and may designate scabies, varioloid, var'ola, or any one of several eruptive

diseases. In many instances patients supposed to suffer from "Cuban itch" were found by the state inspectors to have true variola. Again, the authorities regarding "Cuban itch" and smallpox as one, ordered the quarantine of some patients reported by the local physician to be suffering from Cuban itch. Energetic protests followed and investigation proved the disorder to be a mild form of chicken-pox! Lately, moreover, the terms "prairie" and "Cuban" itch have been used interchangeably.

QUERY 5425.—"Progressive Rheumatism." T. W. F., Mississippi, has under treatment a patient whose illness began, eight years ago, with rheumatism in the fingers, then the hands, later arms, finally in arms and legs; sometimes in one arm and leg, then, after a few weeks, in the other side, then in all of her limbs; for the last two years all over her body, even her jaws. Was not able to turn over in bed, could only sleep an hour or so, waking up feeling pain all over; unable to move and would have to be turned over and in a few minutes be asleep, only in about an hour to have to be turned again. She has been treated by a number of physicians, but not the least relief followed. A few of her joints are slightly swollen; she is not able to dress herself or feed herself. There is no pathological lesion to be discovered. She lives forty miles from me and ten miles from a railroad, so I cannot see her conveniently. The treatment you suggested some time ago has caused improvement. Will you suggest further?

Careful consideration of the report of the pathologist upon the urine submitted indicates, summed up, malelimination, low acidity, practically no urea, much indican and uric acid, so that disturbed metabolism with retention of waste is at the base of the trouble. Order daily epsom-salt sponge-baths; give her ammonium benzoate, 1 grain, with the customary small doses of colchicine and xanthoxylin, every four hours; boldine before eating, bile salts, soda and pancreatin an hour after food.

To the affected joints apply compresses wrung out of the magnesium sulphate solu-

tion. Rub the parts first with methyl salicylate (wintergreen oil). The compresses should be applied as hot as can be borne and covered with flannel.

It is a little doubtful whether this persistent derangement of metabolism has not caused a serious disorder of the nervous system. Test the reflexes and carefully percuss the spine, noting hyperesthetic areas. Is there a possibility of leucic or tubercular taint?

QUERY 5426.—"Epilepsy and the Menstrual Attacks." W. B. C., North Carolina, has under treatment an epileptic patient upon Candler's system. The patient, he says, is progressing very favorably. The paroxysms, which formerly occurred every week and often twice a week, have ceased entirely, except just prior to the menstrual period; even then there is not more than one mild attack, whereas before the treatment was begun they would last two or three days, at intervals of a few hours. He feels very hopeful of a cure, though the case is one of ten years' standing, and in a distant part of the state. "Do you think it advisable to give potassium permanganate two or three days before the menstrual periods? The trouble, I think, is due to delay of the menstrual function."

The progress of this patient is noted with satisfaction, but this is the customary report, and two or three very severe cases reported have now passed several months without medication and without further attack.

It is difficult to suggest in this particular case without a much clearer idea of pelvic conditions. You do not give the patient's age, character of menstrual flow, or extent of delay. Is the patient a married woman or single, what is her physique, what caused the *original* attack? This case seems to be one of ten years' standing. Did the epilepsy come on at puberty? If so, was there any sudden checking of the flow from getting wet or anything of that kind?

We should be inclined to give helenin and viburnum, dioscorein, gelsemin, avenin, and scutellarin in the customary small doses three times daily for four days preceding the expected period, and sanguiferrin (one dram) with each meal or just prior thereto.